Dear friends,

Greetings from IMPF!

On behalf of Indian Medical Parliamentarians’ Forum (IMPF), we are releasing the Winter Session issue of the IMPF Newsletter. We are happy to acknowledge the letters and responses that we are getting from various organizations and MPs with regard to the publication titled ‘IMPF Policy Notes for Parliamentarians on Access to Medicines’, which was released by Hon’ble Vice President, Mohammad Hamid Ansari on 12 August 2007.

Winter Session is very important, as it precedes the Budget Session and budget making process, yet much needs to be done in right direction by understanding the potential of the Parliament in exerting influence on government policies and priorities.

Health budget and health expenditures have been a growing concern for the nation because of the continuous decrease in budget allocations for public healthcare.

The commitment in the National Common Minimum Programme of UPA government to increase public spending on health is 3 percent of GDP, and the commitment to the health and education combined is nine percent of the GDP. This goal is obviously impossible in the forthcoming Budget 2008-09, and unfortunately it is the last Budget of the present Government. Neither the non-Congress constituents of UPA could persuade the government to consider and follow the commitments through CMP.

We witness and experience with considerable dismay, the slow but certain decay in the health services in the country, particularly over the last one decade. The revisit of dengue, the outbreak of malaria in virulent form in many parts of the country, the striking increase in the tuberculosis, re-emergence of monsoon related diseases, are some obvious signs of this decay.

It is heartening to see that some of the issues that discussed or appeared in the newsletters have been found addressed in the Parliament by MPs through the form of Questions and other measures. This is the sign of a constructive intervention in the policy making.

We would like to express our deep indebtedness to all our supporters and well wishers for their solidarity. We also thank all authors for their contributions to this issue and look forward to their continuing support.

R. Senthil
Convener-Secretary

M. Jagannath
Chairperson
Getting Doctors and Nurses to Work for the Public Health System

One major concern with the functioning of the public health system is availability of key functionaries, especially doctors and nurses. The question is not one of lack of production because that happens adequately with about 25000 each of doctors (allopathic alone, in addition to about 20000 AYUSH doctors) and nurses being produced annually. In fact we produce enough to cater to the world and Indian doctors and nurses are in great demand all over the world – over 5000 doctors and 7000 nurses go abroad each year. But the public health system, both in rural and urban areas, is unable to attract the requisite human resources needed for running the public health system. This is despite the fact that over 80 percent of such production happens with public resources.

It is time that the legislators of this country give serious attention to this shortage of human resources for the public health system if the National Rural Health Mission has to achieve any significant success. Apart from doctors and nurses the public health system also needs managers under the architectural corrections mandated by the NRHM.

Over the years various mechanisms have been tried, but they failed because of lack of legal backing. Whatever done was on good faith, which is in fact the cornerstone of the medical profession. But we all know that ethics in medical practice is getting even more distant with gross commercialization of healthcare and good faith is no longer a value cherished by this profession. This makes the role of the lawmakers of the country even more critical.

It is obvious that the only way of meeting the shortages of human resources for public healthcare and other public services is by instituting legislation that mandates compulsory national/state public service of 3 to 5 years. Thus all medical and nursing graduates as well as those of management, engineering, accounting, general stream, etc. must put in compulsory public service as a social return for the investment in them by the public exchequer. This will not only provide the public system with human resources but also instil social responsibility and ethics in the professionals.

Several countries have national public service, either military and/or non-military, and it is time that India put in place such a mechanism. We need a legislation on national public service for anyone attaining age 21 with immediate effect. Otherwise the economic development will have little meaning, as we will increasingly lose skills and resources to the developed world one way or another.

We can learn from different countries; some have general compulsory public service and some target specific professionals like doctors and nurses. Since there is already a historical debate on the health professionals doing some compulsory service like in rural areas we can begin with this profession through a national ordinance making public health service compulsory with immediate effect and gradually bring in the broader legislation for a national public service.

We urge parliamentarians to consider this with urgency and bring this into effect in the winter session of parliament. Since around 25000 doctors and nurses each graduate each year and over 10000 specialists also, we can immediately fulfil all shortages faced by the public health system with one stroke of the pen. Doctors and nurses will agitate and resist but the State must show strong political will to realize the critical objectives of our Constitution of social justice and equity. Similarly management graduates, especially form the IIMs should be targeted, as for them it would be a great opportunity to prove skills in efficiently managing public systems before they learn to manipulate markets. The NRHM needs these management graduates as much as they need doctors and nurses. Let the public health system become the experimental ground for a national public service.

NRHM needs these management graduates as much as they need doctors and nurses. Let the public health system become the experimental ground for a national public service because with healthcare needs addressed, a healthy population is the best guarantee for economic and social development.

- Ravi Duggal
Independent Researcher/Consultant

Preventing Sexual Transmission of HIV and Other STIs

Nearly 4 million people are living with HIV in south and Southeast Asia. HIV prevalence is decreasing or stabilizing in some countries but increasing in others. Unsafe sex and injecting drug use remain the two main drivers of the epidemic.

Preventing transmission of HIV and other sexually transmitted infections (STIs) requires attention to two main areas – effective prevention available to everyone through primary care providers; and appropriate counselling and testing for HIV and STIs, and simple interventions to prevent congenital transmission through reproductive health services. Intensive prevention efforts must also reach people at highest risk in order to break the chain of transmission. A few examples follow.

In Thailand, destigmatization of sex work and 100% condom promotion have resulted in individual benefits, enabling sex workers to demand condom use and access care for sexually transmitted infections (STIs). It has also had a large-scale public heath effect. Rates of curable STIs fell by more than 95% during the 1990s, and HIV prevalence declined in most population groups. By 2002, an estimated 5.7 million HIV infections had been averted. This includes many secondary infections that would
have occurred among clients and their regular partners. Similar results are also being seen in other Asian countries, including Cambodia, Burma, China, and Mongolia. With effective prevention in high-risk settings, fewer men carry infection back to their regular partners. In Myanmar, for example, following scale-up of the 100% Targeted Condom Promotion programme, prevalence of HIV and other STIs declined rapidly among both high-risk and low-risk women.

Another approach was taken in the Sonagachi district of Kolkata, India. Beginning with peer interventions and STI services, a community empowerment model was developed to take on a range of health and social harms faced by sex workers. Today, HIV prevalence remains low in Kolkata compared to other Indian cities. More than 60,000 sex workers participate throughout the state of West Bengal, savings and credit schemes have reduced dependence on sex work, and self-regulatory boards effectively address a range of abuses from trafficking to child prostitution.

In Sri Lanka, well organized health services provide prevention and treatment services to anyone who needs them, and promote use of services through community outreach. These examples show the potential of well designed and well implemented interventions to reduce social harms and safeguard the public health. All involve multiple components, including outreach and peer interventions, access to the means of prevention, and good clinical services, which have had measurable public-health effects.

Widespread stigma and discrimination still exist in the community and in healthcare settings. Poverty, ignorance, and low status of women create unfavourable conditions for HIV prevention and control. Criminalization of high-risk behaviours drives those in need underground where interventions cannot reach.

as a result, coverage of vulnerable populations with HIV services remains low in many countries.

Some argue that, if HIV is linked to sex work, tighter enforcement of laws prohibiting sex work will curb HIV. Such thinking is naïve and ignores historical experience. Only one country (China) has ever been able to eliminate sex work, and only for a short time. With a return to economic liberalization in the 1980s, sex work, together with rapidly escalating STI/HIV transmission, returned quickly.

There are thus real dangers, in terms of public health and human rights, in taking a punitive, law enforcement approach with highly marginalized populations. Where this has happened, prevention coverage declines, condom use falls, STIs rebound and HIV resumes its spread. On the other hand, many benefits are possible when taking a sound public health approach. WHO and partners are exploring new ways to scale up interventions that reduce the incidence of HIV while supporting marginalized populations to improve their lives. Governments and partners should take the lead in:

- Creating an enabling environment for vulnerable populations to access HIV/STI services by reducing stigma, discrimination and punitive policies.
- Focussing on proven prevention interventions particularly for populations at highest risk of infection.
- Urgently scaling-up of HIV/STI prevention, care and treatment services to achieve sufficient population coverage.

Principles and operational aspects of these interventions are covered in WHO documents including the Regional Strategy for Prevention and Control of Sexually Transmitted Infections.

- Richard Steen & Jai Narain
WHO Regional Office for South-East Asia, New Delhi.

Time for India to Help Rewrite the Global Rules of Medical R&D

Here in India, like elsewhere in the developing world, Medecins Sans Frontieres (MSF – Doctors without Borders) is struggling to treat HIV/AIDS, Malaria, Kala’azar and multi-drug resistant Tuberculosis (MDR-TB). Last year MSF treated more than 250,000 people in India, covering the states of Chhattisgarh, Maharashtra, Bihar, Manipur, Assam and Jammu & Kashmir.

The scale of MSF’s medical response falls significantly short of the treatment needs in India’s rural areas. Besides an ailing public healthcare system, for many diseases there are no effective drugs, diagnostics, and vaccines to treat the ill and invalid. When the health tools do exist, they are all too often unaffordable.

The reason that many effective drugs and tools do not exist at all is the failure of the current incentive system for pharmaceutical R&D. Today, the R&D system is market driven and relies on companies recovering their R&D investments by charging the highest possible price for a drug, diagnostic or vaccine, and protecting that price through patent monopolies. This means that the drive behind medical R&D today is profit, not the urgency or scale of public health needs. Even if a promising candidate vaccine or treatment for Kala’azar is discovered, for example, pharmaceutical companies will not invest in its development, since the potential buyers of any marketed product - patients in India and other developing countries - cannot afford to pay anything other than very low prices. When no lucrative market can be expected, investments into R&D simply do not happen.

Most policymakers in the government of India today believe that a strong patent system is necessary to stimulate innovations for drugs and diagnostics. Research suggests that this is incorrect as far as the needs of patients in developing countries. Between 1975 and
2004, of the 1,556 new chemical entities (NCEs) commercialized, only 21 (1.35%) were specifically for the treatment of ‘tropical’ diseases, including tuberculosis and malaria. Out of these 21 NCEs developed, very few were the result of R&D efforts of the pharmaceutical industry.

Despite such findings, government policies and incentives continue to be focused on increasing intellectual property protection and do not match the reality of neglected disease drug development. Most people intuitively understand the injustice associated with this system where treatment does not reach to the unaffordable, no matter how much they need it. In India alone, due to the absence of R&D on new TB drugs and diagnostics in the last few decades, more than 500,000 people die of TB every year and pay for this injustice with their lives. Without medical innovation it is impossible for doctors to diagnose and treat TB with accuracy and confidence.

There is now an unprecedented opportunity to address this fundamental problem of the R&D system. This November (2007) and in 2008 beginning, representatives of governments from across the world including from India’s Ministry of Health and Family Welfare are participating in meetings at the United Nations in Geneva to discuss, negotiate and reach an agreement for creating alternative incentives to stimulate R&D for neglected diseases.

Facilitating this process is the ‘Intergovernmental Working Group on Public Health, Innovation and Intellectual Property’, a body set up by the World Health Organisation. This political body has the international mandate to set research priorities and design financing mechanisms that reward R&D on neglected diseases and ensure that medical innovation does not happen at the expense of access to medicines, despite widespread patenting of drugs and diagnostics that price them out of reach.

The talks offer the government of India an unprecedented opportunity to address both medical innovation and access to medicines for diseases that take a massive human toll in India. Rarely, in international health, does such an opportunity present itself. We trust the Government will seize the moment before it passes.

- Leena Menghaney
Medecins Sans Frontieres, Campaign for Access to Essential Medicines www.accessmed-msf.org

**Supply of Essential Drugs in Government Healthcare, a Tamil Nadu Model**

The morbidity and healthcare surveys undertaken by the National Sample Survey Organisation point out that individuals incur substantial out of pocket expenditure on medicines irrespective of the fact whether they seek treatment in government or private healthcare system. Various state governments in India are trying a variety of approaches within their limited budgets to meet the medicinal needs of the people. For instance, Tamil Nadu government in 1995 has set up the Tamil Nadu Medical Services Corporation (TNMSC), an autonomous supply service agency for procuring and distributing essential medicines for the government health utilities in the state.

TNMSC is responsible for identifying the (a) list of essential drugs that are to be bought, (b) suppliers who can supply the required quantity at appropriate quality and prices, for (c) ensuring that the medicines reach the warehouses meant for drug storage, and (d) monitoring their appropriate storage from where different health services draw their requirements. TNMSC’s services are availed by all the government agencies that provide health services in Tamil Nadu as well as other departments such as juvenile homes, ESI hospitals, all prisons and police department hospitals, cooperative sugar factories and tea plantations, veterinary hospitals, road transport corporation hospitals, etc.

While a limited number of drugs are set aside for the requirement of the primary health centres (PHCs), the district hospitals and the teaching medical hospitals can draw according to their requirements from the list of essential drugs. The entire process of procurement and distribution involves certain principles of private enterprise embedded with the welfare objective. The pooled procurement has resulted in procuring drugs continuously at a lower price, which can help the government in reaching out to more people or in strengthening the technology in government healthcare. This has also enabled TNMSC to utilize the budget to buy certain equipments required for hospitals.

A primary survey carried out in two districts of Tamil Nadu among PHCs (2003) and taluka hospitals (2005) showed that the efforts to provide quality drugs in the government system has created positive image of the government facilities among the users of the PHCs. For instance, one of the measures taken is to dispense the drugs in their original packing, thus doing away with the earlier practice of dispensing the drugs loosely. The medicinal budgets of the health facilities depend on the flow statistics of users. Health facilities observed that while a reduction in the number of users gets reflected in the medicinal budget almost in the following year, an increase in the number of users do not get the same attention. TNMSC has taken care of the procurement and distribution, but more attention has to be paid to the infrastructure needs and improving the availability of the health providers to meet the demands of the users.
Lack of such resources force the people to look for private facilities, which stretch beyond their means. In order to maintain continuous supply to the facilities, the TNMSC warehouses are supposed to maintain a stock for three months. Each state government spends 3 to 5 per cent of their budget on health. Therefore government has to ensure that these resources are appropriately spent and meets the needs of at least that section of the society which is dependent on the government healthcare. However, TNMSC type of intervention are worth replicating in other states since, in the absence of health cover for majority of people, ensuring the medicinal availability would at least reduce the out of pocket expenditure for the users.

-Dr. N. Lalitha
Gujarat Institute of Development Research, Ahmedabad

Burdened Innocence: Orphans and Vulnerable Children, Stigma and Access

Imagine the story of Manavi, a six-year-old girl who only knows scorn, rejection, and loss. Her mother contracts HIV from her father, a truck driver. One after the other, her parents die. The little girl is diagnosed HIV-positive. Her care is placed in the hands of her 70-year-old grandmother. But the woman, unable to face the aftermath of the death of her son and daughter-in-law, leaves Manavi and the village, never to return. The small child is not allowed to enter the homes of any of her other relatives, who fear the disease will be transmitted to their own children.

This story isn’t a work of fiction. It is based on the life of a little girl in Andhra Pradesh, but it is also the story of countless children throughout India. It is the harsh reality of children living under the burden of stigma, from a disease they do not understand and from the society. Orphans and vulnerable children (OVC) in India face widespread discrimination, which impedes their access to health care, education, and other support services. Stigma keeps OVC out of classrooms, segregated in their community, and even without a home in their extended family. Not surprisingly, the stigmatization and marginalization of OVC make them disproportionately vulnerable to abuse and sexual exploitation, as well as to becoming infected with HIV. Girls are less likely to receive essential care and support, and are especially vulnerable to sexual exploitation.

India has 350 million children under the age of 14. Approximately 18 million of these children live on the streets. The number of child labourers varies from 22 million to 111 million, while more than 500,000 children have been drawn into the sex trade. A quarter of a million children in India are estimated to be HIV-positive. With a mother-to-child transmission rate of approximately 30 percent, nearly 60,000 newborns are infected each year, from 189,000 HIV-positive women. India is home to roughly 2 million HIV/AIDS-affected orphans and vulnerable children. Thirty-five percent of them are denied access to even basic services.

These children are too young to understand what is happening to them, much less stand up and protest against it. Policymakers have an obligation, to orphans and vulnerable children (OVC) and to India as a whole, to turn the tide on stigma once and for all, and give children affected by HIV a chance at life.

The National AIDS Control Organization, the organization in India tasked with responding to HIV has no programmes for AIDS orphans, and national policy is devoid of a comprehensive response to save these children from a life of injustice, abuse, and suffering. A proactive approach to identify gaps in current Indian policies and the implementation of existing provisions is urgently needed to ensure OVC enjoy access to basic social services like other Indian children.

Children who have access to support systems are able to stay in school, receive proper healthcare, and eventually get better jobs, all of which lower their risk of contracting HIV. HIV-positive children who are supported with access to medicines and early detection are more likely to survive, and less likely to unknowingly spread the disease to others.

Aggressive advocacy on behalf of highly vulnerable children must come from all levels of our global community to create policies supporting HIV-infected children and the vulnerable. International programmes and policies can reflect local needs and leverage resources to ensure communities’ care for the children who so desperately need them.

The time for action is now, before the problem grows any bigger, before there are more orphans on the street, before another Manavi stands bewildered, wondering why she is all alone. Her future, and those of others like her, is inextricably tied to all of India.

- Dr. Vineeta Gupta
Stop HIV/AIDS in India Initiative (www.shaii.org)
- Jennifer Delaney
Global Action for Children (www.globalactionforchildren.org)
People-Centred healthcare – the Sittilingi Experience

Sixty years after Independence, the health of rural India is still condemned to standards far below anything that the WHO has declared. Our experience in the remote forest areas of Sittilingi in Dharmapuri district of Tamil Nadu has shown that the situation can be improved by a people-centred approach of healthcare.

Tribal Health Initiative launched its activities in September 1993 with two doctors a modest hut in Sittilingi village, in the heart of a reserved forest area in Dharmapuri district of Tamil Nadu. The work soon evolved into taking in and treating serious patients. Before long the construction of a full-fledged hospital was completed by early 1997. The non-tribes of this area too use this facility since the nearest hospital is about 50 km away. There is now a 24 bed hospital with a labour room, a neonatal care room, an emergency room and an operation theatre. Investigative facilities include a laboratory, X-ray unit and ultrasound scanning. The Government also recognizes the hospital as a TB and leprosy diagnosis and treatment centre, and as a family planning centre. The hospital sees more than 18000 patients per year, admits and treats about 1200 in-patients, does more than 300 surgeries and 300 deliveries a year.

Training Local Talent: Since in this remote place getting skilled workers is almost impossible, it was decided to rely on the local repository of human talent. Two levels of training were done – tribal girls as Health Workers and older tribal women as Health Auxiliaries. At first they were very sceptical and wondering how an illiterate middle-aged lady could learn such complicated things like diagnosis and treatment. But on our assurance they did the selection – and we have 24 ladies from 21 villages, who cater to about 10,000 people. The Health Auxiliaries have been key figures in changing many of the harmful superstitions, which affected the health of the community. A good example of this is that for thousands of years deliveries had been conducted in the backyard of the hut – where usually all the garbage is dumped. This custom used to claim many a life due to infection and cold. Now, most births are on the veranda of the hut or even inside. This has brought down the neonatal mortality down significantly. Childhood pneumonia, diarrhoeal dehydration, maternal mortality and morbidity too have come down. There has been no maternal mortality for the past 4 years and infant morality has come down to 32/1000, which is a considerable achievement in a tribal area.

Holistic Approach: Good healthcare cannot exist in a vacuum and a more holistic approach was needed. For this we have set up Tribal Educational Initiative, a Resource Centre for the tribal children where they are able to get an exposure and training in the many facets of education which are absent in their schools. Tribal Farming Initiative have started forming farmers’ collectives, which give a better purchasing and selling power by using minimum external resource agricultural techniques like organic methods of agriculture. Women groups in the villages value-add to the grown products to get a better price in the market. Tribal Craft Initiative in two Lambadi (gypsy) villages now have women groups who are now involved in breathing life to their almost extinct embroidery skills. This ensured that their exquisite designs were not lost and provides good income too.

Most of the ill health in the country can be and need to be managed by trained local people. The medical community’s belief that a formal education is mandatory to do this is a myth and it is high time we come out of it. People’s health should be in people’s hands – that is the only sustainable answer for the rural areas.

- Dr. Lalitha Regi & Dr. Regi M. George
Tribal Health Initiative Sittilingi, Tamil Nadu
(www.tribalhealth.org)

Total Fertility Rate and Women’s Education

The total fertility rate (TFR) sometimes also called the total period fertility rate (TPFR) of a population is the average number of children that would be born to a woman over her lifetime if she were to experience the exact current age-specific fertility rates through her lifetime. A woman’s reproductive period is roughly from 15 to 45 years, a period of 30 years. If a woman is married at the age of 15 and living till the age of 45 with her husband and is exposed to the risk of pregnancy for 30 years, and may give birth to 15 children, but this maximum rarely happened. In India, data shows that an average woman gives birth to an average of six or seven children if her married life is uninterrupted.

Fertility depends upon several factors. The higher fertility in India is attributed to the system of marriage, lower age at marriage, low level of literacy, poverty, limited use of contraceptives, traditional way of life, etc. Education has direct and inverse relationship with the women’s TFR. All the National Family Health Surveys show that total fertility rate is 1.5 children higher for illiterate women than for the women with at least high school education. Education of both wife and husband directly affect wife’s fertility performance. The decline in the TFR is more from those who has attained some education.

Girls’ schooling, particularly metric and beyond,
affects the number of births in many ways. First, it delays their age of marriage since girls are not usually married while they are in school. Secondly, the fact of her education as a girl is an index of the likelihood that she will be married in a family with enough resources to afford medical help to her children whenever need arises and would imply preventing many infant and childhood deaths. This keeps the total number of live births at a low level. Finally, an educated couple would like to provide better education to their children than they themselves had which in turn involves quite a bit of cost and hence would limit their family size.

Factors which influence the total fertility rates are age of marriage, duration of marriage life, spacing and children, economic status, caste and religion, nutrition status, family planning, etc. Fertility is also affected by a number of physical, biological, social and cultural factors such as place of women in society, values of children in society, widow remarriage, breast feeding, customs and beliefs, industrialization and urbanization, better health conditions, housing, opportunities for women, and involvement of local community.

Increased spending on individual and community development and in turn the education of the women plays a greater role in the TFR and population control and need to share greater concern for women education by the all governments in the Globe.

- Dr. M. Jagannath
Member of Parliament, Lok Sabha
(Extract of the speech delivered at the International Conference for African Development IV and G 8 Summit, Tokyo, Japan, on August 2007)

---

**Heart - Tips Useful for Everyone**

Following are some useful tips gathered from an interview with Dr. Devi Shetty, Heart Specialist, Narayana Hrudyalaya, Bangalore:

**Q**: What are the thumb rules for a layman to take care of his heart?
**Ans**: 1. Diet - Less of carbohydrate, more of protein, less oil 2. Exercise - Half an hour’s walk, at least five days a week; avoid lifts and avoid sitting for a longtime 3. Quit smoking 4. Control weight 5. Control blood pressure and sugar.

**Q**: Is eating non-vegetarian food (fish) good for the heart?
**Ans**: No.

**Q**: It’s still a grave shock to hear that some apparently healthy person gets a cardiac arrest. How do we understand it in perspective?
**Ans**: This is called silent attack; that is why we recommend everyone past the age of 30 to undergo routine health checkups.

**Q**: Are heart diseases hereditary?
**Ans**: Yes.

**Q**: What are the ways in which the heart is stressed? What practices do you suggest to de-stress?
**Ans**: Change your attitude towards life. Do not look for perfection in everything in life.

**Q**: Is walking better than jogging or is more intensive exercise required to keep a healthy heart?
**Ans**: Walking is better than jogging since jogging leads to early fatigue and injury to joints.

**Q**: Can people with low blood pressure suffer heart diseases?
**Ans**: Yes.

**Q**: Does cholesterol accumulate right from an early age?
**Ans**: Cholesterol accumulates from childhood.

**Q**: How do irregular eating habits affect the heart?
**Ans**: You tend to eat junk food when the habits are irregular and your body’s enzyme release for digestion gets confused.

**Q**: How can I control cholesterol content without using medicines?
**Ans**: Control diet, walk and eat walnut.

**Q**: Can yoga prevent heart ailments?
**Ans**: Yoga helps.

**Q**: Which is the best and worst food for the heart?
**Ans**: Fruits and vegetables are the best and the worst is oil.

**Q**: Which oil is better - groundnut, sunflower, olive?
**Ans**: All oils are bad.

**Q**: What is the routine checkup one should go through? Is there any specific test?
**Ans**: Routine blood test to ensure sugar, cholesterol is ok. Check BP, Treadmill test after an echo.

**Q**: What are the first aid steps to be taken on a heart attack?
**Ans**: Help the person into a sleeping position, place an aspirin tablet under the tongue with a sorbitrate tablet if available, and rush him to a coronary care unit since the maximum casualty takes place within the first hour.

**Q**: How do you differentiate between pain caused by a heart attack and that caused due to gastric trouble?
**Ans**: Extremely difficult without ECG.

**Q**: What is the main cause of a steep increase in heart problems among youngsters?
**Ans**: Increased awareness has increased incidents. Also, sedentary lifestyles, smoking, junk food, lack of exercise in a country where people are genetically three times more vulnerable for heart attacks than Europeans and Americans.

**Q**: Is it possible for a person to have BP outside the normal range of 120/80 and yet be perfectly healthy?
**Ans**: Yes.
Q: Marriages within close relatives can lead to heart problems for the child. Is it true?
Ans: Yes, consanguinity leads to congenital abnormalities.

Q: Will taking anti-hypertensive drugs cause some other complications?
Ans: Yes, most drugs have some side effects. However, modern anti-hypertensive drugs are extremely safe.

Q: Will consuming more coffee/tea lead to heart attacks?
Ans: No.

Q: Are asthma patients more prone to heart disease?
Ans: No.

Q: How would you define junk food?
Ans: Fried food like Kentucky, McDonalds, samosas, and even masala dosas.

Q: Indians are mentioned three times more vulnerable. What is the reason for this, as Europeans and Americans also eat a lot of junk food?
Ans: Every race is vulnerable to some disease and unfortunately, Indians are vulnerable for the most expensive disease.

Q: Can a person help himself during a heart attack?
Ans: Yes. Lie down comfortably and put an aspirin tablet of any description under the tongue and ask someone to take you to the nearest coronary care unit without any delay and do not wait for the ambulance since most of the time, the ambulance does not turn up.

Q: Do, in any way, low white blood cells and low hemoglobin count lead to heart problems?
Ans: No. But it is ideal to have normal hemoglobin level to increase your exercise capacity.

Q: Does walking while doing daily chores at home or climbing the stairs in the house, work as a substitute for exercise?
Ans: Certainly. Avoid sitting continuously for more than a half hour and even the act of getting out of the chair and going to another chair and sitting helps a lot.

Q: Is there a relation between heart problems and blood sugar?
Ans: Yes, a strong relationship, since diabetics are more vulnerable to heart attacks than non-diabetics.

Q: What are the modern anti-hypertensive drugs?
Ans: There are hundreds of drugs and your doctor will chose the right combination for your problem, but my suggestion is to avoid the drugs and go for natural ways of controlling blood pressure by walk, diet to reduce weight and changing attitudes towards lifestyles.

Q: Does dispirin or similar headache pills increase the risk of heart attacks?
Ans: No.

Q: Why is the rate of heart attacks more in men than in women?
Ans: Nature protects women till the age of 45.

Q: How can one keep the heart in a good condition?
Ans: Eat a healthy diet, avoid junk food, exercise everyday, do not smoke and, go for health checkups if you are past the age of 30 (once in six months recommended)...