Developing a Comprehensive Health Care System

by Dr A K M Rashid

ACTION has been initiated in the country for strengthening health infrastructure through the establishment of upazila health complexes, union sub-centres/UHFWCs and deployment of health personnel at different levels for the delivery of essential health care to the community. But due to lack of efficient management, poor quality of services, shortage of essential drugs and absence of referral system, the services are grossly underutilized. A large number of people seeking medical relief have to travel long distances to the district hospitals and national-level teaching hospitals and specialist centres, leading to overcrowding and unsatisfactory service delivery at these institutions. To put an end to the prevailing situation, it is necessary that the national health policy provides guidelines with regard to intensification of primary health care (PHC) approach, reorganization of health services and strengthening of managerial process.

'Health-Team' approach at community level

Bangladesh has a comparatively large front-line workforce from the Health and Family Planning Division. What is now needed is to develop a mechanism for the utilization of this vast workforce for the efficient delivery of health and family planning services as an 'integrated package'. A modality currently being developed through a WHO and UNDP project for intensification of PHC at the community level may provide valuable information in this regard. But to make this mechanism sustainable it would be necessary to ensure: (a) full support and guidance from the national level authorities of both Health and Family Planning services, (b) adequate motivation of the health and family planning personnel at the periphery, (c) mobilization of extra resources, (d) community mobilization and (e) multisectoral action.

Establishment of referral system

Decentralization of services would require establishment of a sound referral system to ensure adequate utilization of expertise at higher levels of the health system. This approach would lead to: (a) progressive improvement of comprehensive health care services at the periphery, (b) greater utilization of health infrastructural facilities, and (c) prevention of overcrowding at the secondary and tertiary level health institutions.

Strengthening of epidemiological services

Mere compilation of reports does not serve the sole purpose of a sound health information system. What is necessary is to develop a quick response capability through the establishment of an epidemiological intelligence unit at the district level (nearest to the scene of happening). This unit, headed by a medical officer duly trained in public health and epidemiology, and supported by an entomologist, an operational officer and a statistical assistant, would be entrusted with the task of quick analysis of data, initiation of prompt remedial action and to provide necessary feed back.

Reorganization of Health Services

For achieving the goal of 'Health for All' the health sector in collaboration with other health related sectors and with the active involvement of the community needs to plan and implement a variety of promotional, preventive, curative, and rehabilitative health care services.

The present administrative machinery lacks dynamism necessary to lay adequate emphasis on the holistic approach to health development, does not provide adequate scope to health professionals for career prospect development and above all it is highly centralized. While the major focus of attention in restructuring the existing governmental health organization would relate to establishing comprehensive primary health care services, attention should also be given for the improvement of the secondary and tertiary level referral institutions.

At the national level under the Ministry of Health there should be two divisions — the division of health services and the division of education and research in addition to the division of family planning. The director general, health services, will be responsible for planning, organizing, implementing, monitoring and review of all health care and nursing services, including special programmes, at all levels of the national health system. He will be assisted by several directors. The post of director, PHC and CDC will, however, need to be elevated so as to enable him to effectively coordinate the functioning of special programmes, such as EPI, vector-borne diseases control, diarrhoeal diseases control and microbacterial diseases control programmes. The DG, education and research, will be responsible for maintaining high standard of medical and nursing education as well as that of the allied health sciences, strengthening of research capability in the country, and overseeing ethical issues. The management of the teaching hospitals will be the responsibility of DG, education and research. He will be assisted by the director, education and the director, research in the planning and production of health including nursing manpower, organizing national level research activities and coordinate with international level organizations involved in research.

The district level health system has to play a pivotal role in the delivery of primary health care services. At this level there should be meaningful interaction between the 'bottom-up' and 'top-down' planning processes, and the responsibility of implementation, monitoring and review of various programmes/projects should be vested on the organisational set-up at this level. Adequate leadership will have to be provided from this level for the management of PHC services at the upazila, union and ward levels. The district level 'health team' leaders (civil surgeon/medical officer/epidemiologist) must possess post-graduate qualifications in Community Medicine and Public Health so that their managerial and planning capabilities are enhanced.

Private practice by government functionaries

Since it is a tricky issue it needs to be very carefully reviewed before a policy decision is arrived at. In any case a national health policy, on which depends the health development of the country, cannot remain silent without making a reference to this vital issue. Neither is it practicable nor is it desirable to make all the positions of the government medical officers as non-practicing. However, a few persons holding very responsible and critical positions, such as the director generals of health services and education and research and the full-fledged professors of the undergraduate and post-graduate medical institutions, whose leadership and undivided attention and dedication will determine the future course of health development in the country, may be required to give up private practices, providing at the same time for payment of appropriate compensatory non-practicing allowance and higher status.

Indigenous systems of medicine

These categories of personnel constitute a considerable strength in the health care system of the community, and as such their services should be integrated at appropriate level of PHC system and utilized within specified areas of responsibility, particularly in the fields of promotional and preventive health care.

Health legislation

A comprehensive health legislation covering all aspects of the national health system, both governmental and private, needs to be reviewed and new laws adopted and meticulously enforced. This should also include regulatory measures for the operation of private hospitals and clinics and those operated by NGOs, as well as ethical issues.

Health audit

In order to improve performance and for the sake of accountability, a system of audit needs to be introduced at every administrative level. This should include auditing the activities carried out in order to determine effectiveness and efficiency of the organization.

Managerial capability

The philosophy of modern managerial process to effectively deal with the holistic approach to health development is yet to be put into practice. The managerial styles practiced at different levels of the health system include mostly management by exception and management by crisis rather than by objective.

In order to ensure organizational effectiveness adequate attention should be given to modern managerial style, leadership qualities, delegation and motivation, training and refresher course, better service conditions and carrier prospect development, effective supervision and control measures and development of a system of independent evaluation.

Health Financing

There is no sense in making an ambitious health plan without locating the sources of fund. Furthermore, distribution of resources between the urban and rural population and in accordance with disease profile also needs due emphasis in the health policy.

In Bangladesh the health care expenditure in the public sector is provided from the revenue and the development budget. But due to budgetary limitation it is nearly impossible to meet the health care costs of the people, which in recent years have increased manifold due to combination of factors, such as higher consumer demand, technological advancement and inflationary trends. According to a study carried out by the Bangladesh Institute of Development Studies in 1988, the total cost of health care (health and family planning) borne by the government in the year 1987-88 was only 1.1% of GNP; a declining trend in budgetary allocation for health care was also noticed. The Health Sector Fourth Five Year Plan Document has, however, shown a slight increasing trend (from 3.6% in 1985-86 to 4.2% in 1988-89 of the total national budget). But in real form this increase is not significant. Moreover, a large portion of this allocation was utilized for physical infrastructure development. Of the revenue expenditure, the lion's share (about 75%) goes for the payment and allowances of personnel and as such allocation for drugs and medical supplies continues to remain very low.

In view of the prevailing situation, it is quite clear that until and unless additional resources are mobilized the goal of 'Health for All' cannot be achieved in near future. If the government intends to implement a health policy with emphasis on PHC approach, per capita cost of health services will far exceed the present level of allocation. Some possible sources or approaches which can be tapped are as follows:

(a) Increased allocation to health sector on the premise that investment in health development is a productive investment.

(b) Cost-sharing in keeping with community's paying capacity at upazila and union level health institutions by introducing a registration fee for both out-patients and in-patients. This would not only augment fund but would also reduce the number of non-patients.

(c) Private sector and NGOs should be encouraged by the government to invest more on a somewhat partnership basis and in a planned manner in health care programmes, particularly in high technology sources, and to cover underserved or unserved rural areas.

(d) Re-allocation of available resources between the sophisticated urban based care and the community based primary health care to the extent possible. Establishment of additional teaching institutions instead of enlarging the production capacity of the existing ones may further deplete the scarce resources for primary health care.

(e) Besides mobilizing community resources through their active participation in the management of their own health programmes, it would be necessary to introduce well considered health insurance schemes. Insurance schemes which are in operation in the developed countries based on the concepts of co-payments, co-insurance, deductible etc may provide the basis for evolving a scheme suitable for Bangladesh.

(f) It should be made mandatory on the part of industrial units to make necessary budgetary provision for providing health care service for their employees.

(g) In order to ensure maximum utilization of available resources a system of auditing needs to be introduced at all levels and in all the health institutions.

(h) in addition to mobilization of internal resources, securing assistance from external sources is also important particularly in the areas of priority health problems.

Human resources development

Human resource is the most precious resource, because without trained and skilled personnel other resources can neither be explored nor properly used. In this country, this is particularly important because nearly two-thirds of the health budget is spent on the health personnel.

While a critical look into the nation's manpower situation would show surplus of doctors and nurses, need-based assessment would reveal that there is shortage and maldistribution of doctors and nurses in many areas in the country. The possible reasons for unbalanced health manpower are: (i) excess production of certain categories and under-production of other categories, (ii) lack of need-based manpower planning, (iii) improper utilization and (iv) large scale migration.

The existing situation in the country, therefore, needs to be improved through short-term and long-term plans which should aim at the following:

(a) Development of a system by which all relevant information regarding different categories of health manpower is compiled and updated every year through the introduction of a computerized information system.

(b) Health manpower planning should be realistically based on the country's health budget and considered as an integral part of planning process for health development.

(c) Preparation of master plan (long-term) for the production and utilization of health manpower with adequate scope for professional advancement.

(d) Decision for opening new medical college and nursing school should be based on the clear picture of need-based requirement arrived at through meticulous planning and assessment.

(e) Changes in curriculum content are needed to provide greater insight and knowledge of priority health problems and community oriented health care. The curriculum for undergraduate medical students should also include some basic concepts of planning and management.

(f) Incentives and disincentives should be introduced to bring about better redistribution of health personnel; residential accommodation in rural areas should be ensured.

(g) Standard of medical and nursing education/training should be upgraded in keeping with the development in other parts of the world.

Education and research being the basic foundation of the health policy of a nation, along with the measures for improving human resource development serious attention also needs to be given to the research and development approach for the improvement of the health services in the country. What is needed is to infuse necessary interest and enthusiasm particularly among the professors of undergraduate and post-graduate level medical institutions in the country and get them involved in the research and development programmes, and remove the bureaucratic procedures which dampen the interest of the researchers.

The Growing Menace of Cancer in Nigeria

NIGERIA'S population is projected to nearly triple over the next three decades, reaching 301 million people by the year 2025, based on a report by the United Nations Population Fund.

If today's trends are a sign, cancer will increasingly threaten the health and lives of this rising population. Entering the 1990s, the disease is a growing menace in Nigeria, and the country's health care services — as they are in most developing countries — are too poorly equipped to fight it.

The World Health Organization (WHO) has estimated that more than 50% of the world's cancer patients are in developing countries. In Nigeria, hard numbers are lacking but the most common malignancies are reported to be cancers of the uterine cervix, breast, head, and neck. Other cancers may become a threat in the years to come because of changing social habits — smoking, for example, is increasingly evident.

Unfortunately, for a variety of reasons, most cancer cases in Nigeria are detected when they are almost incurable. These reasons are related to the beliefs and attitudes of patients, as well as of physicians, and the state of health care in the country.

Problems and perceptions

About 75% of Nigerians live in rural areas. But health care facilities are concentrated near major cities. Consequently, rural dwellers turn to traditional healers for their health care needs. When signs and symptoms of tumours start manifesting themselves, they are often attributed to other causes and superstitious beliefs.

A woman with post-monopausal bleeding, for example, may attribute it to her menstruation cycle instead of seeking an early medical examination to rule out uterine or cervical cancer.

Cancer patients that are referred to treatment face a number of obstacles. Foremost among them is the lack of cancer treatment centres, particularly those with radiotherapy facilities.

Radiation therapy, either as a curative, adjuvant, or palliative measure, is often required in cancer treatment. Nearly one in three cancers can be successfully treated by radiotherapy, surgery, chemotherapy, or a combination of these modalities, if the cases are detected early enough.

In Nigeria, however, only two radiotherapy centres are operating. They are located at Lagos University Teaching Hospital in Lagos, and at the University College Hospital in Ibadan. Between them, these centres have two cobalt-60 machines and two radiotherapists. Together the two centres must serve the needs of up to half a million cancer patients from Nigeria and neighbouring countries in West Africa.

This heavy load translates into a waiting time of about 6 months before a patient can begin radiation therapy. By that time metastases has taken place in most cases.

The lack of radiotherapists reflects the shortage of trained medical staff. There are not enough medical physicists, oncology nurses, radiographers, or dosimetrists, either, and all are necessary for the smooth running of a radiotherapy centre.

There are also shortages of trained personnel to service and repair radiotherapy equipment, and when it breaks down, experts have to be flown in.

Plans call for developing a third radiotherapy and oncology centre at Ahmadu Bello University Teaching Hospital, Zaria. If realized, this centre will bring a little relief, even though it would be capable of handling about 50% of the patients residing in Northern Nigeria.

Another problem affecting the effectiveness of cancer diagnosis and treatment is cost.

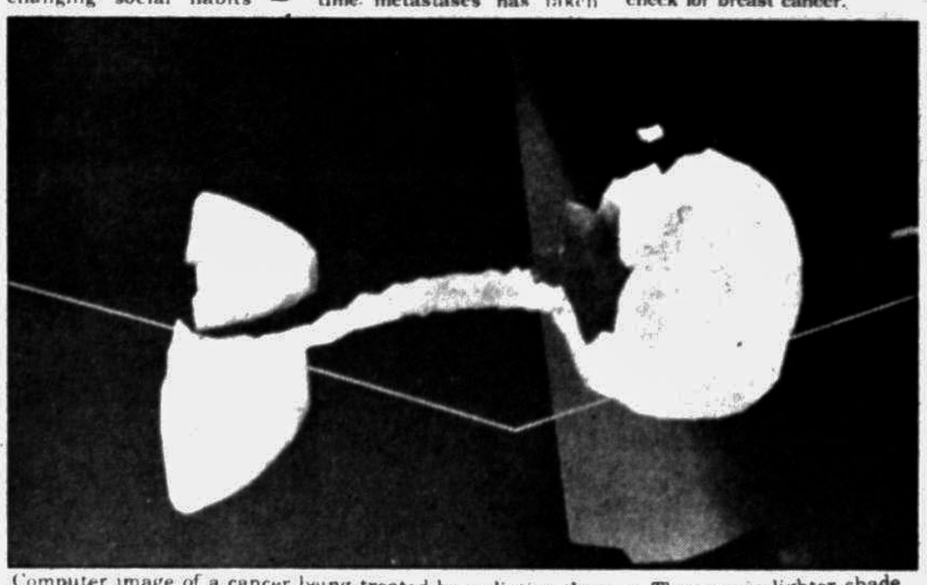
Remedial actions

Despite this state of affairs, there are some steps that can be taken at various levels. Fighting cancer in Nigeria — and other developing countries — requires a concerted effort involving local, national, and international organizations, as well as individual citizens themselves. Some actions that should be taken address the most fundamental needs and concerns :

Health education of the public : People should be made more aware about what to look for, what to avoid, and how to do regular self-examinations.

Early diagnosis and treatment: When ill, a person should seek prompt medical attention. When cancer is suspected, the patient then can be referred to a specialist at the earliest possible date, when the tumour may still be curable.

A patient at risk should have regular medical checks, and investigations should be carried out to diagnose and/or rule out abnormalities, for example, regular PAP smears for women of reproductive age to investigate carcinoma of the cervix, regular mammography for women over 40 years, to check for breast cancer.



Computer image of a cancer being treated by radiation therapy. The cone in lighter shade corresponds to the path of the rays. (Credit : UNESCO Courier)

Equipment: More radiation therapy equipment needs to be provided to combat cancer. Each radiotherapy centre should have at least two treatment machines to complement each other. Cobalt-60 machines are more suitable for the Nigerian environment than linear accelerator since cobalt units are less complex and require less maintenance.

Training : Programmes should aim to reduce the shortage of personnel in radiotherapy, paramedicine (for patient management), and the servicing and repair of radiation therapy instruments. This shortage of personnel calls for continued participation in the activities of IAEA and WHO, which have provided expert services, group and individual training, and organized conferences and seminars.

Drugs : Drugs to fight cancer, such as alkylating agents, antimetabolites, mitotic inhibitors, antibiotics, and hormonal agents should be available at specialist hospitals, and they should be subsidized for those patients who cannot afford them.

— contributed by Mr TA Olasinde, an IAEA scientific fellow from Nigeria training in the field of radiotherapy.

Intervals between Births Cut Infant Deaths

PARENTS who wait at least two years before having another child give their children a greater chance of staying alive. .

The mer act of spacing births by at least two-year intervals could prevent one in every five infant deaths in many countries, the latest international demographic and health surveys show.

For example, it can bring down Thailand's infant mortality rate (IMR) by 22 per cent and Indonesia's by 12 per cent.

A baby born less than two years after the older sibling is almost twice as likely to die than one who follows after two years or more, the data show.

the chances of survival for the older brother or sister are also significantly reduced.

Theses findings come from the Demographic and Health Surveys of 20 countries done in 1990 by the Institute for Resource Development/ Macro International. The unpublished data, which support the findings of the World Fertility Surveys (1972-1984), is cited by the Washington, D C - based Population Reference Bureau (PRE) in the new edition of its booklet Family Planning Seves Lives. PRD is a private non-profit, non-advocacy group.

The statistics are grim. During 1990, an estimated one out of every 12 babies in developing countries- or 10 million- died before reaching age one. Added to these were four million deaths among children aged one to five.

"The loss of 14 million lives in one year- a number larger than the population of the majority of the world's countries- is a human tragedy," said the publication.

Infant deaths were highest in Africa, averaging 109 per 1,000 live births in one year. High IMRs of 74 and 54 were also found in Asia and Latin America, respectively, contrasting with Europe's 12 and North America's 9.

More than half of all deaths among children five years old and below were due to acute respiratory infections and diarrheal diseases. Daily, these diseases alone claimed the lives of 23,000 children under age five.

In addition 7, per cent of under- five deaths were traced to malaria and 6 per cent to neonatal tetanus. The rest (29 per cent) were due to various other illnesses.

Frequent pregnancies take their toll on mothers. About half a million women, almost all in developing countries, die each year from complications of pregnancy and childbirth

An underlying condition was malnutrition, which begins when the next pregnancy comes too soon. Not having recovered from the physical demands of a previous pregnancy, the mother gives birth to a low birthweight baby prone to illness and possibly death.

The older sibling, too, will have to be weaned from breast milk sooner than desirable, depriving her or him not only of a tvital source of nutrition but alos the to several diseases that breastmilk provides.

With proper birth 'spacing- as well as routine immunisation, breastfeeding, adequate nutrition and hygiene - children will hav greater chances of survival.

Frequent preganeies also take their toll on mothers. About half a million women- 99 per cent of them in developing countries- die every year from complications of pregnancy and childbirth. Pregnancy, breastfeeding and having one too many children to take care have left millions of women in a perennial state of poor health.

If the mother dies, it is less likely that her infant- and her other children below age five- will live, said PRD.

However, as many as two out of evry five married women who wish to defer pregnancy are still not using any family planning method, asy researchers Charles Westoff and Luis Hernando Ochoa who made the study in 1991 for the Institute for Resource Development.

Women who want to plan their familes but are not using a contraceptive method make up 16 per cent in Indonesia, 12.3 per cent in Sri Lanka and 11.1 per cent in Thailand. Still higher percentages were found in Togo (40.1 per cent), Bolivia (35.7 per cent), Ghana (35.2 per cent) and Peru (27.7 per cent).

A World Bank study estimates that increasing the annual spending on such by as little as US$1.50 per cent capita can cut maternal mortality rates by half within the decade. —Depthnews Asia

Poison Information Network in Sri Lanka

SRI LANKA is increasingly concerned with a health problem that, next to heart disease, is the foremost leading cause of death in hospitals: poisoning.

"There have been alarming increases in poisoning cases in Sri Lanka over the last decade," says Professor Ravindra Fernando, head of the country's National Poisons Information Centre (NPIC), "19,597 such cases were admitted to state hospitals in 1979, and by 1988, this figure had risen to 32,848. There are now over 2,000 deaths per year."

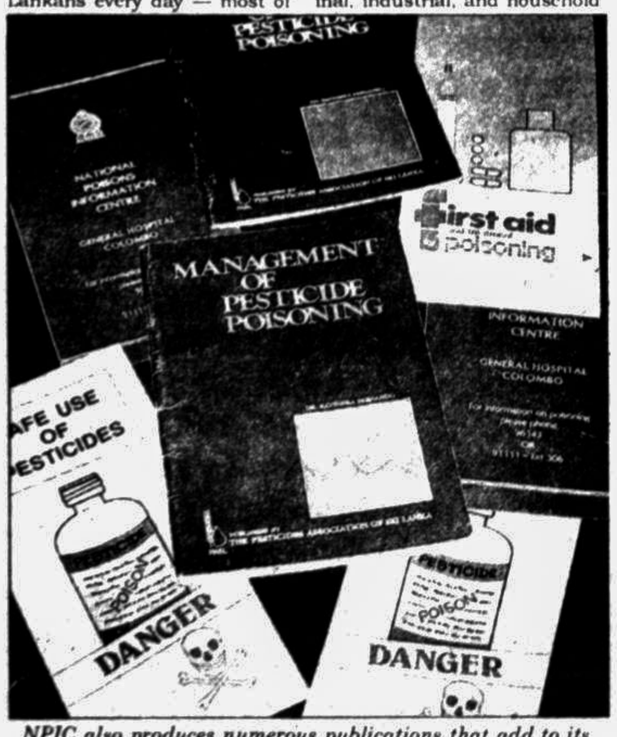
It is estimated that another 1,500-2,000 people — mainly in the rural areas — die before admission to hospitals, raising this figure to around 4,000 deaths annually.

Pesticides are the predominant cause, accounting for nearly two-thirds of all poisoning cases.

A 1982 survey by the World Health Organization (WHO) revealed for the first time the magnitude of the problem posed by pesticides in a developing country. Health workers and researchers attribute this trend to an ever-increasing use of pesticides in agriculture, leading to greater unrestricted availability.

The majority of poisoning cases, about 75%, are through the deliberate ingestion of pesticides in suicide cases. Occupational and accidental poisonings account for the rest.

Pesticides kill several Sri Lankans every day — most of them under 40 years of age. In addition, an average of two people die daily from snakebites. Plant poisons and medicinal, industrial, and household chemicals are also a factor in the number of poisonings.



NPIC also produces numerous publications that add to its role as a poison information bank.

Some severe poisoning cases die before they are able to reach a hospital. Preventable deaths occur even among those who are admitted, mainly because doctors and paramedics are unable to identify poisons and the specific symptoms of poisoning. Occasionally, doctors fail to give the right treatment.

It is, however, unrealistic to expect clinicians to remember the constituents, toxic effects, and symptoms of, and appropriate treatment for, several hundred pesticides, drugs, and other chemicals.

This situation warranted a central institution that would act as an information bank storing all this information.

The National Poisons Information Centre was set up by the Government of Sri Lanka for this purpose: to provide quick and reliable information to clinicians on identifying and treating poisoning cases 24 hours a day, throughout the year.

The first of its kind in South Asia, the Centre is strategically based at the 2,000-bed General Hospital in the capital, Colombo.

The groundwork for the Centre started in 1986 at the Colombo University's Medical Faculty. The facility was established at the hospital in 1988 under a 3-year IDRC grant, which is now complete.

Here, three information scientists, aided by several doctors, work around the clock responding to inquiries coming from all parts of the country. The telephone is the main medium — 86% of inquiries in 1990 were made over the phone. Written requests and visitors are also accommodated.

The Centre stores information using several thousand "Poison Index Sheets" on various poisons. These are arranged in alphabetical order with easy cross reference.

There were only 12 cases of snake-bites, for which both traditional and Western treatment are more readily available.

Since it started, the Centre has responded to more than 1,000 inquiries. "Every year we have had more inquiries than the previous year," says Professor Fernando. "Doubtless many lives have been saved because of this facility."

In addition to information and advice, the NPIC also provides essential antidotes to hospitals and general practitioners. More and more doctors are now aware of the Centre's work and are increasingly seeking information assistance, according to Professor Fernando. — IDRC Reports