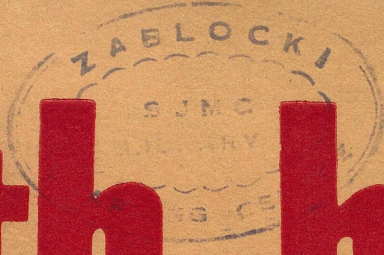


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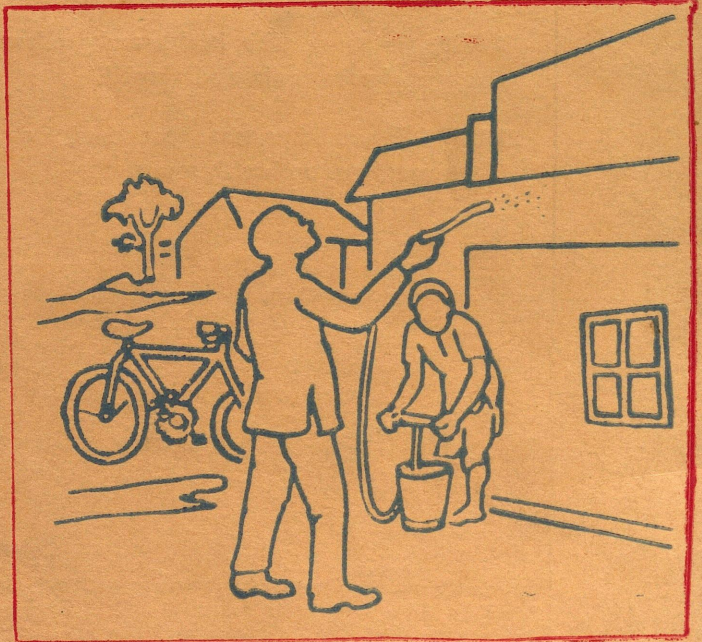
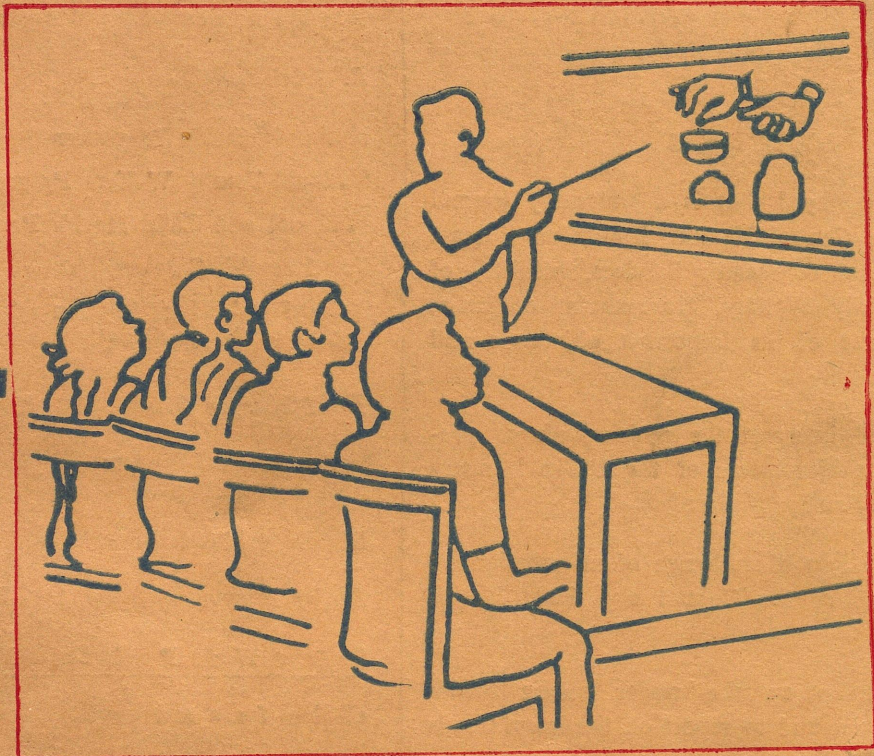
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ISSN 0586-1179

# swasth hind

august 1990



## HEALTH PROGRESS

# swasth hind

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August 1990  
Vol. XXXIV, No. 8

## OBJECTIVES

*Swasth Hind* (Healthy India) is a monthly journal published by the Central Health Education Bureau, Directorate General of Health Services, Ministry of Health and Family Welfare, Government of India, New Delhi. Some of its important objectives and aims are to:

**REPORT** and interpret the policies, plans, programmes and achievements of the Union Ministry of Health and Family Welfare.

**ACT** as a medium of exchange of information on health activities of the Central and State Health Organizations.

**FOCUS** attention on the major public health problems in India and to report on the latest trends in public health.

**KEEP** in touch with health and welfare workers and agencies in India and abroad.

**REPORT** on important seminars, conferences, discussions, etc. on health topics.

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Kotla Marg, New Delhi-110 002

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## In this issue

	<i>Page</i>
<b>Health scenario during 1989-90</b>	185
Efforts to provide effective health services to rural areas	
<i>R. Srinivasan</i>	
<b>National Health Programmes</b>	189
<b>National Family Welfare Programme</b>	197
<b>Maternal and Child Health Programme</b>	201
<b>Rural Health Services</b>	205
<b>Role of technology in primary care of the newborn babies</b>	209
<i>Dr. Meharban Singh</i>	
<b>Indian Medical Systems — a new fillip</b>	212
<b>Disability is not the end</b>	213
<i>Sanjay Bhatnagar</i>	
<b>State of World Population 1990</b>	215
<b>Choices for a new century</b>	
<b>Book review</b>	3rd cover

Articles on health topics are invited for publication in this Journal.

State Health Directorates are requested to send in reports of their activities for publication.

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## SUBSCRIPTION RATES

Single Copy . . . . .	50 Paise
Annual . . . . .	Rs. 6.00

(Postage Free)



# EFFORTS TO PROVIDE EFFECTIVE HEALTH SERVICES TO RURAL AREAS

R. SRINIVASAN

Health and Family Welfare activities were pursued in the year 1989-90 as indispensable inputs for improving the quality of life. The Ministry of Health and Family Welfare kept steadily moving towards its goals of providing primary health care for all and achievement of a Net Reproduction Rate of Unity by the turn of the century as stipulated under the National Health Policy. During the year, preventive and promotive aspects of health services were augmented, action for greater child survival accelerated and quality of services further improved to make them more responsive to the people's needs.

THE year which was also the last year of the Seventh Five Year Plan, witnessed the continuation of concerted efforts for provision of effective and efficient health and family welfare services to the people in the rural areas by expanding and strengthening the network of primary health care infrastructure. The Ministry is near to achieving a substantial portion of its targets for establishing the health care infrastructure by the end of the current Plan.

At the end of September 1989, about 1,21,874 Sub-Centres for every 5,000 population, 19,184 Primary Health Centres (PHCs) for every 30,000 population and 1,666 thirty-bedded Community Health Centres for every 100,000 population had been established. In order to remove the existing imbalances in the provision of health care and family welfare services to the Scheduled Tribes and inhabitants of backward areas, different norms for the establishment of these facilities have been evolved. Accordingly, for tri-

bal, hilly and backward areas, Sub-Centres are sanctioned for every 3,000 population and a Primary Health Centre for every 20,000.

#### Span of life

The significant increase in the average life span of an Indian—from 32 years in 1947 to 58.6 during 1986-91—is an important yardstick with which to measure the socio-economic development of the country as also the effective implementation of the Health Policy and Programmes, being carried out with the Central support.

#### Malaria Eradication:

##### Steady Headway

The National Malaria Eradication Programme, which is the world's biggest health programme against any single communicable disease, made steady headway after implementation of the modified plan of operation. There was, accordingly, a gradual downward trend in Malaria incidence in the country. As against 6.47 million cases in 1976, there were 1.78 million cases in

1988. However, the incidence of Malaria has shown an increase in the first half of the current year though the situation varies from State to State. Mortality due to Japanese Encephalitis which registered an increase in 1988 is showing a steep decline this year.

The new short-course chemotherapy drug has reduced the duration of treatment of Tuberculosis patients from the earlier 18-24 months to 6-8 months. The drug has been introduced in 194 selected districts of the country. During the current year, it is proposed to be extended to another 18 districts. Renewed emphasis is being laid on detection of new TB cases for which sputum examinations are being increasingly conducted, especially in the rural areas. Steps are also being taken for a more effective follow-up and for minimising dropouts.

#### Leprosy

About four million people suffer from Leprosy. There are 196 high endemic districts and no district in

the country is free from leprosy. The National Leprosy Eradication Programme stipulates arresting the disease in all known Leprosy patients by the year 2000 AD. The Multi-Drug Treatment (MDT) introduced recently is proving effective. Consequently, the number of patients cured and discharged is increasing from year to year. During the year, upto September 1989, a little over 2,15,000 new leprosy cases were detected while, 2,74,704 cases were discharged after treatment. All the endemic districts are proposed to be brought under this new regimen in a phased manner by the year 1992. Rehabilitation of cured lepers continues to be an area of concern and deserves more attention.

#### **Blindness to be reduced**

There are approximately 9 million blind persons in the country i.e. people who cannot see properly from a distance of 6 metres. Another 45 million suffer from visual impairment. Most blindness is due to cataract. State Ophthalmic Cells have been constituted in 18 major States to coordinate programme activities. It is proposed to strengthen 200 PHCs in the year 1989-90 and train 1000 Ophthalmic Assistants. Training work has picked up momentum. All endeavours are being made to provide relief to the visually impaired through service centres and the camp approach. Since uneven voluntary effort for cataract operations has been posing problems, the Ministry has revised and formulated a set of guidelines for organising such camps so as to ensure the safety and quality in eye-relief services. It is envisaged to reduce blindness in the country from 1.4% to 0.3% by the turn of the century.

#### **Goitre Control**

About 167 million people are estimated to be living in known goitre-endemic regions of the country

which are mostly in the entire sub-Himalayan Region. Nearly 45 million people are estimated to be suffering from Goitre which is an iodine-deficiency disorder. It is now known that this deficiency can also lead to the birth of mentally retarded or otherwise malformed or low birth-weight babies, if the expectant mothers have this deficiency. Intake of iodised salt is thus an important safeguard against this disease. It is, therefore, proposed to cover the entire country by Universal Iodisation of edible salt by 1992. Production of iodised salt is being stepped up to meet the requirement. During 1988-89, there was a record production of 21.90 lakh MTs. This capacity is expected to rise further in the coming years.

#### **AIDS; Emphasis on Health Education**

Education about the dreaded disease of AIDS is being stepped up to create a better awareness about it besides surveillance of high risk groups. The Ministry, in collaboration with the Indian Council of Medical Research, has established 43 surveillance and 4 referral centres. Twenty-eight exclusive zonal blood testing centres are functioning in the metropolitan cities to test the blood donors by establishing linkages with Blood Banks. Facilities have also been developed at 10 medical colleges for efficient clinical management of HIV infected persons and AIDS cases. Training courses have been organised for this purpose and 220 doctors and 110 nurses have been imparted training in collaboration with WHO.

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**"It is envisaged to reduce blindness in the country from 1.4% to 0.3% by the turn of the century."**

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#### **Mental Health**

National Mental Health Programme was launched in the 7th Plan to ensure availability and accessibility of minimum mental care for all in the foreseeable future particularly to the most vulnerable and under-privileged sections of population. A National Advisory Group has been constituted for effective implementation of the Programme alongside encouraging voluntary effort in this field.

The **National Diabetes Control Programme** launched recently seeks to provide diabetic health care as a part of the primary health package.

To combat the increasing menace of drug abuse and drug addiction, de-addiction centres have been sanctioned and beds have also been provided in several State Government hospitals.

#### **Indian Systems of Medicine**

The Indian Systems of Medicine and Homoeopathy which have a great role to play in the spread of health services in the country continue to receive financial and technical support from the Ministry. In the field of traditional medicine research, an integrated and coordinated strategy has been formulated in the 7th Plan involving multi-disciplinary effort for both clinical and experimental studies for the treatment of diseases like viral hepatitis, anal fistula, diabetes mellitus and bronchial asthma. The new approach is disease-oriented in contrast to the conventional drug-oriented research.

#### **Population increase: Still a problem**

The demographic profile of the country continues to cause serious concern. Our population which was 342 million at the time of Independence is estimated to have crossed 807 million in the year 1989 and is increasing by about 16 million

every year. As an integrated approach, the family welfare programme continues to go hand in hand with our Health Programmes both in terms of infrastructure and implementation as a total package of family well-being, providing special care to mothers and children.

The desire to have a large family can, to some extent, be ascribed to a high Infant Mortality Rate and low literacy levels coupled with numerous interrelated social and economic factors. Though the Infant Mortality Rate (IMR) has declined from 129 in the year 1976 to 94 per thousand live births in 1988, it still remains far higher as compared to the developed world. The National Health Policy envisages to scale it down to 60 per thousand live births by the year 2000 A.D.

#### **Immunization to protect Children and Pregnant mothers**

A determined bid is, therefore, being made to lower this high mortality rate. With this end in view, the National Technology Mission on Immunization is being strengthened to reduce morbidity and mortality rate among children. The Universal Immunization Programme which seeks to protect infants and pregnant women against vaccine-preventable diseases is under implementation. Under this, it is proposed to cover 85% of infants and 100% of pregnant women by the end of March, 1990. The effort involves an annual vaccination target of immunizing 252.05 lakh pregnant women with two doses of TT and 191.82 lakh infants with three doses of DPT and Polio Vaccine, in addition to one dose each of BCG and Measles.

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**“The significant increase in the average life span of an Indian—from 32 years in 1947 to 58.6 during 1986-91—is an important yardstick with which to measure the socio-economic development of the country as also the effective implementation of the health policy and programmes”.**

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This Programme had been extended to 307 districts upto the year 1988-89. It is expected to cover all the remaining districts within the current year. Efforts are also being made to mobilise greater community support for the immunization programme. The uptake of vaccination services is registering an increase from year to year. Disease-surveillance data collected over a period of time has shown a corresponding decline in the incidence of vaccine-preventable diseases in the operational areas. However, surveillance system has to be made more adequate.

#### **Oral Rehydration Therapy**

Efforts for ensuring greater child survival are being further intensified by popularising the Oral Rehydration Therapy (ORT) for safeguarding children below five years from death caused due to dehydration as a result of diarrhoeal diseases. Every

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**“The family welfare programme continues to go hand in hand with our Health Programmes both in terms of infrastructure and implementation as a total package of family well-being, providing special care to mothers and children.”**

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year due to Diarrhoea, 30 million children develop dehydration and three million face death. The life of about 50 percent of these children can be saved by timely use of home-made fluids, the Oral Rehydration Salt or sugar-salt solutions. ORS packets are being supplied free of charge through Government health facilities and efforts are on the way for its social marketing as well.

Mortality and morbidity among women due to complications related to pregnancy and child birth are reported to be significantly high in the developing countries including India. This problem is being tackled on two fronts, i.e. by providing prophylaxis services of iron & folic acid solution against nutritional anaemia for both mothers and children and by ensuring aseptic deliveries by imparting training to all untrained birth attendants. It is proposed to train 10,000 'dais' during the year under report, over and above 5.85 lakh dais trained since 1974.

Repeated and unwanted pregnancies also account for a great deal of suffering and morbidity among women, especially when pregnancies come too early or too late or too often in their reproductive life span. To reduce the incidence of child-birth related mortality and

morbidity, ante-natal and post-natal services have been strengthened at the periphery levels. Focus is also being given to telescoping fertility into the twenties by delaying the first pregnancy, spacing the second and adopting a two-child family norm.

#### **Information, education and motivation**

Communication strategies have been revamped in the last few years. Emphasis continues to be laid on disseminating appropriate knowledge through information, education and motivation. Inter-personal communication and extension education is being extended to bring about a value change leading to adoption of two-child family norm. Communication efforts also touch upon areas beyond family planning, such as raising the age of marriage, levels of education, especially of girls, women's employment, their status in society, male responsibility, equality of sexes, etc., through integration of health and family welfare messages.

Social bias against the girl child has been surfacing again in the recent years through the misuse of amniocentesis or similar tests conducted for sex determination. These tests which are primarily undertaken to locate genetic defects in the foetus, are unfortunately being misused for abortion of the female foetus after sex-identification. The Government has prepared a draft legislation for

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**“Emphasis continues to be laid on disseminating appropriate knowledge through information, education and motivation. Inter-personal communication and extension education is being extended to bring about a value change leading to adoption of two-child family norm.”**

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adoption by States for putting an end to the exercise of these indiscriminatory pre-natal diagnostic techniques for sex-determination and restrict their availability only for medical and research purposes by making the violations punishable under law.

Effective involvement of voluntary and non-governmental organisations in promotion of the programme continues to be encouraged. In-depth studies are contemplated with ILO funding to bring the workers employed in various sectors within the purview of the Programme.

#### **Acceptors of Family Planning methods rise**

Performance under the Programme is showing an improvement from year to year. The total number of acceptors of different family planning methods in 1988-89 reached 24.38 million which is an all-time high record so far in any year since inception of the Programme. During the year 1989-90 (upto December, 1989), the total number of acceptors was 18.56 million as against 16.49 million in the corresponding period of last year, showing an

increase of 12.5 per cent. It is estimated that since inception of the Programme, more than 106.2 million births have been averted upto March, 1989. The Couple Protection Rate has reached the level of nearly 42 per thousand—the goal set for the 7th Plan. The SRS estimate of birth rate for 1988 is 31.3 per thousand which is lower by almost 10 points as compared to the birth rate of 41.2 per thousand during 1961-1971. But, to make a tangible dent on the birth rate, efforts are being directed towards bringing more and more younger couples with lower parities within the ambit of the Programme.

The population problem poses a formidable challenge to the Nation. The task of tackling it cannot remain confined to one Department or one Ministry. It has, therefore, to be viewed as a collective effort of all Departments of the Government. It is time that population control and achievement of small family norm are given a central place in the development planning.

*—Excerpts from the Introduction to the Annual Report (1989-90) of the Ministry of health and Family Welfare*

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# NATIONAL HEALTH PROGRAMMES

With a view to combating major communicable and other diseases and reducing mortality and morbidity caused by them, numerous health programmes have been undertaken at the national level. These programmes are planned and carried out with Central support. During the year, activities under these programmes continued to make further headway.

## NATIONAL MALARIA ERADICATION PROGRAMME

**N**ATIONAL Malaria Eradication Programme in India is the world's biggest health programme against a single communicable disease and continues to be the country's most comprehensive and multifaceted public health activity. With the successful implementation of National Malaria Eradication Programme in 1958, the annual incidence of Malaria was drastically reduced from 75 million to about 0.1 million in 1965. The deaths due to Malaria were completely eliminated. Unfortunately, due to various factors these achievements could not be maintained and the country reported 6.47 million cases of malaria in the year 1976.

Resurgence of malaria necessitated renewed vigorous anti-malaria activities and the programme was modified in the context of escalating malaria situation and available resources in the country to tackle the deteriorating situation of malaria, to prevent deaths from malaria, and to maintain the agricultural and industrial growth. The Modified Plan of Operation was implemented from 1st April, 1977 and it has met with some success.

Since the implementation of the Modified Plan of Operation (7th Plan) there has been a gradual downward trend in Malaria Positive Incidence in the country as is evident from the table I.

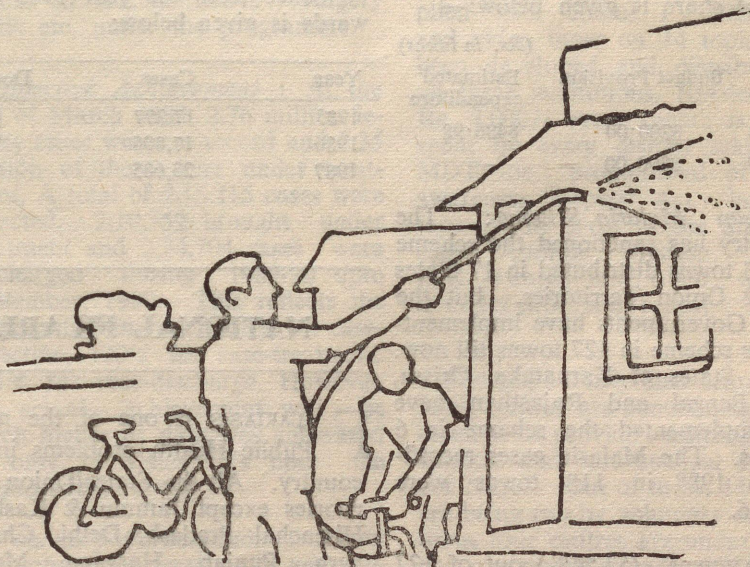
Table I shows that as against 6.47 million cases in 1976 there were 1.78 million cases in 1988 showing a reduction of 72.46% over a period of 11 years. The incidence of *P. falciparum* was 753713 in 1976 which came down to 655638 in 1988 showing a reduction of 13.01%. However, the rate of decline varies from State to State.

During 1989, as per reports received upto 30-9-89, there is a considerable increase of 39.44% in malaria cases; *P.f.* infection has increased by 20.54% as compared to the corresponding period of 1988.

However, the situation is not uniform everywhere. In some States, total malaria cases and *P.f.* cases have shown decrease during 1989 as per reports received up to 30 September, 1989.

*Surveillance Operations:* An analysis of the malaria situation in the country over the last eight years, 1981 to 1988, shows that number of blood smear examinations fluctuated between 64.29 million to 72.48 million.

ABER which is an index of operational efficiency was above the



expected level in 1981; afterwards the ABER was fluctuating within 9.18 to 9.65 per cent.

However, in the States/UTs of Bihar, Lakshadweep and coal-fields in West Bengal. ABER continues to be less than 3% which is very low against the national target of minimum of 10%. If these States are excluded from the rest of the country, the ABER works out to be about 11%.

**Spray Operations:** During the year 1988, the projected population with API 2 and above in the country was 365.25 million and the same was required to be sprayed. The average population covered was 198.71 million.

By and large the spray operation was deficient in many States. Delay in starting spray operations, less population targetted for spray by the States inadequate coverage, incomplete spray were found to be the main features; the reasons being insufficient provision of funds, less release of funds for spray, delayed and piece-meal sanctions of funds etc.

**Population Projected for Spray for 1989**  
(in million)

D.D.T.	B.H.C.	MAL.	TOTAL
223.77	120.20	26.80	370.27

**Budget:** Budget provision and estimated expenditure under 50% Central share is given below:—

Year	(Rs. in lakhs)	
	Budget Provision	Estimated expenditure
1987-88	8200.00	8486.98
1988-89	8300.00	—

**Urban Malaria Scheme:** The Ministry has sanctioned the scheme in 133 towns distributed in 17 States and 2 Union Territories, but the State Governments have implemented the scheme in 127 towns till now. The States of Karnataka, Orissa, West Bengal and Rajasthan have not implemented the scheme in 6 Towns. The Malaria cases recorded in 1988 in 118 towns were 120656.

68 towns (53.54%) out of 127 towns from where comparable data

Table I

Year	B. S. E. (in Mill.)	ABER	+ve cases	SPR	P.f	SFR	API	Deaths
1976	55.98	9.73	6467215	11.55	753713	1.38	11.24	59
1985	68.13	9.38	1864380	2.74	545005	0.80	2.57	213
1986	67.69	9.18	1792167	2.65	638276	0.94	2.43	323
1987	72.53	9.63	1663284	2.29	618574	0.85	2.21	188
1988	72.48	9.55	1780906	2.46	655638	0.90	2.46	209

(Prov.)

Comparative figures for 1988 and 1989, based on reports received upto 30th September 1989, are: 3.48 (million B.S.E.), 567445 (+ve Cases) and 170556 (Pf) for 1988 and 3.26 791251; and 205587, respectively.

was available showed a decline in malaria cases during 1988 as compared to that of 1987. The towns of Ahmedabad, Hyderabad, Madras, Calcutta, Chandigarh etc. recorded downward trend, but the metropolitan town Bombay showed a little upward trend in comparison with the corresponding period of 1986.

The metropolitan towns of Madras, Delhi and Calcutta recorded 26,459, 14,441 and 16,930 cases of Malaria respectively during the year 1988.

**Kala-Azar**

The Kala-azar unit of NMEP is monitoring the Kala-azar situation in India. This unit is regularly collecting the Kala-azar incidence reports and is keeping a close vigil over the situation. Kala-azar incidence from the year 1985 onwards is given below:

Year	Cases	Deaths
1985	17,277	44
1986	17,806	72
1987	23,685	94

1988 (Prov.)*	22,739	131
1989 (Prov.)*	9,125	76

\*(Reports received upto 30-9-89)

Kala-azar is endemic in Bihar and West Bengal and 24 districts in Bihar and 8 in West Bengal are regularly reporting Kala-azar incidence. The States have been requested to spray DDT in the affected areas along with ensuring early case-detection and treatment. The Directorate of NMEP is providing technical guidance and material assistance in terms of insecticides out of its regular budget. No specific funds for Kala-azar control are available. Government of India provided cash assistance of Rs. 2 crore to Bihar and West Bengal in addition to insecticides out of NMEP budget during 1988-89. During 1989-90 also assistance is being provided out of NMEP budget. An expert committee to review drug schedule for treatment of Kala-azar was constituted. The Government of India constituted a Group of experts on Kala-azar who has submitted its recommendations for control of Kala-azar in India. It has been proposed to take up anti Kala-azar activities as an extension of NMEP.

**NATIONAL FILARIA CONTROL PROGRAMME**

**F**ILARIASIS is one of the major Public Health problems in the country. All the States/Union Territories except Jammu & Kashmir, Himachal Pradesh, Delhi, Chandigarh, Punjab, Haryana, Meghalaya, Arunachal Pradesh, Sikkim,

Rajasthan, Tripura, Mizoram and Manipur are endemic for Filariasis. Present estimates indicate that about 367 million people are living in known endemic area of which about 97 million are in Urban areas and the rest in Rural Areas.

For the control of Filariasis, the National Filaria Control Programme was launched in 1955. The following activities are being undertaken:

1. Delimitation of the problem in hitherto unsurveyed areas.
2. Control of Urban areas through:—
  - (a) Recurrent Anti-larval measures.
  - (b) Anti-parasitic measures.

**Present set-up :** The present set-up in endemic State/Union Territories consists of 204 Control Units, 27 Survey Units and 186 Clinics.

During 1988-89, it was proposed to set-up 10 new control units, one survey unit and 50 clinics. So far, 4 control units, 1 survey unit and 19 clinics have been established.

**Progress :** At present, about 41 million urban people are being protected through antilarval measures by 204 control units and 186 clinics are giving treatment with DEC to clinical cases and Microfilaria carriers.

**Achievements :** 301 districts are situated in endemic areas, of which 243 districts have been surveyed for delimitation of filaria problem and 174 have been detected to be endemic for filariasis. 27 Survey Units are carrying out delimitation survey in equal number of districts. It is observed that 94 per cent of the towns, where control measures are in operation for more than five years, have shown marked reduction in Micro-filaria rates.

## NATIONAL LEPROSY ERADICATION PROGRAMME

**Problem :** There are about one-third of world's total leprosy patients in our country. One-fifth of total estimated four million leprosy patients of the country are infectious, one-fifth are children and 15 to 20% of total leprosy cases have deformities. In 196 districts of the country, there are 5 or more cases of leprosy for every 1,000 population. In another 239 districts, there are less than 5 leprosy cases for every 1,000 population and no district is free from leprosy. 430 million people of the country live in these 196 high endemic districts.

**Priority & Objectives :** The National Leprosy Control Programme started its operation in 1956 and in 1983, the programme was re-designated as National Leprosy Eradication Programme (NLEP) with the objective of arresting the disease activity in all the known leprosy patients by the year 2000 AD. During the Sixth and Seventh Five Year Plan periods (1980-1990), it has been a 100% Centrally-Sponsored Plan scheme.

**Infrastructure :** By the end of March, 1989 there existed 704 Leprosy Control Units, 931 Urban Leprosy Centres, 243 District Leprosy Units, 6099 SET Centres, 49 Leprosy Training Centres, 287 Temporary Hospitalisation Wards, 37 Sample Survey-cum-Assessment Units, 75 Reconstructive Surgery Units etc. under the programme.

**Objective Achievement :** At the end of March 1989, 2.76 million leprosy cases were on record and 2.35 million of them were under treatment. A total of 2,15,115 cases were detected, 2,10,752 brought under treatment and 2,74,704 cases were discharged during 1989-90 upto September, 1989. This reflects the target achievement of 123% for case-detection, 120% for case-treatment, 104% for case-discharge. However, the actual achievement will be much higher as data was submitted by only 16 States/UTs upto the period under report.

**Voluntary Participation :** About 285 voluntary organisations are play-

ing important role in detection of leprosy cases, education of the patients and community and in treatment of the disease. These voluntary organisations cover a total of 60 million population spread over different areas. As per their reports, 8.20 lakh leprosy cases are on record and 7.61 lakh cases under treatment.

**Rehabilitation :** Thirteen Leprosy Rehabilitation and Promotion Units located in different parts of the country are providing facility for surgical correction of the deformed leprosy patients and the vocational training of disabled cured leprosy persons.

**Health Education :** High priority has been accorded to create mass awareness about the programme in view of stigma attached to the disease. About Rs. 50 lakh are being disbursed to the States/UTs every year along with broad guidelines for its utilisation. The educational material required for the States/UTs are being prepared/procured and disseminated to peripheral units for their use. Leprosy films on 7 topics and 15 types of education materials have been developed in bulk from Central level and the same has been distributed to all the States/UTs. 50 medical colleges and 43 Leprosy Training Centres have been supplied with colour TV/VCR sets, and video tapes on 14 topics have been developed and distributed to all these institutions. Besides this, Rs. 3,000/- every month is being spent by every district taken on MDT for promotional of public awareness. Lepers' Act has been repealed by most of the States except Andhra Pradesh, Assam, J&K, Punjab and Bihar, where it is under process of repeal.

**Training :** Forty-nine leprosy training centres are functioning in the country to provide training to the medical and para-medical staff under NLEP. Out of these, 14 centres are being run by voluntary organisations, four centres are under DGHS and one centre is under ICMR. Out

of total 17,407 technical NLEP staff in position, 15,256 have been given basic training in leprosy.

**Budget:** Under the programme, Rs. 65 crore have been allocated for the Seventh Plan period (1985-90) for the programme and an additional outlay of Rs. 20 crore has been provided for 1989-90. Thus the total expenditure during 7th Plan would be about Rs. 85 crore.

**Multi Drug Treatment :** At present, there are 112 endemic districts covering a population of 200 million with leprosy case-load of 2.2 million brought under MDT. The remaining 84 districts are proposed to be covered under MDT in a phased manner by the year 1992 out of which 33 districts are proposed to be taken up during 1989-90. Eight endemic districts have completed MDT for over 5 years where the aggregate prevalence rate has come down to less than 2 cases per 1000 population compared to over 10 cases per thousand population before MDT. The annual case detection rate has also been reduced by 60 to 70%. The deformity rate has also come down among new cases and the relapse rate among MDT cured cases is less than 1% in these districts. 28 low endemic districts have also been sanctioned MDT during the year 1989-90 in addition to the 5 low endemic districts sanctioned earlier. The total case-load of leprosy has been reduced particularly in the States of Andhra Pradesh, Tamil Nadu, Maharashtra and Gujarat. All endemic districts of Tamil Nadu, Andhra Pradesh, Gujarat, Karnataka, Pondicherry and all endemic districts of Maharashtra except Greater Bombay have been covered under MDT. This treatment has also been introduced in Lakshadweep where it is reported to be showing a positive impact.

**Research :** Three candidate leprosy vaccines have been cleared by the Ministry for mass field trial to study their efficacy, which are being tried in the district of Kolhapur of Maharashtra, Chinglepattu of Tamil Nadu and Kanpur of Uttar Pradesh. It would take at least five years to arrive at any conclusion regarding their effectiveness and utility under the programme.

## NATIONAL TUBERCULOSIS CONTROL PROGRAMME

**T**UBERCULOSIS is a major public health problem in India. Nearly 1.5% of the total population is estimated to be suffering from radiologically active tuberculosis disease of the lungs. Of these, about  $\frac{1}{4}$ th or 0.4% are sputum positive or infectious.

Upto the end of September 1989, out of 440 districts in the country, 375 have been provided with District TB centres equipped with essential equipments and manned by trained staff for undertaking District-wise T.B. Programme in association with general health and medical institutions. In addition, there are about 330 T.B. Clinics functioning in the country which are mostly located in big towns and cities to look after the needs of the local population.

About 46,000 beds are functioning in the country for treatment of seriously sick T.B. patients.

T.B. Training and Demonstration Centres have been established in major States of the country to undertake the basic training of the paramedical personnel required for the programme.

Anti-TB drugs for free treatment of TB patients are being supplied to the TB clinics run by the State Governments as a Centrally Sponsored Scheme on 50 : 50 sharing basis between the Centre and the States. The Scheme of supply of anti-TB drugs to the T.B. clinics run by voluntary bodies and schemes of supply of material and equipments and anti-TB drugs to UTs., however, continue as 100% centrally sponsored Scheme.

As a part of new strategy in the treatment regimens under National T.B. Control Programme, short course chemotherapy drug regimens containing Rifampicin and Pyrazinamide have been introduced in 194 selected districts of the country so far. It is proposed to introduce these regimens in another 18 districts of the country during the year 1989-90. More districts are expected to be brought under these regimens in a

phased manner in the ensuing years. These regimens will reduce the duration of treatment of the tuberculosis patients from 18 to 24 months to 6 to 8 months.

The new T.B. Case Detection has been increasing from year to year. As against detection of about 10.81 lakh new T.B. cases during 1982-83, about 15.57 lakh new T.B. cases were detected during 1988-89. Further, to expand the T.B. case detection among the rural population and to involve the Primary Health Centres in T.B. case finding activities, targets were also laid for conduction of 50 sputum examinations per month at each of the Primary Health Centres for the first time during 1983-84 and nearly 12.12 lakh sputum examinations were conducted. There is a significant improvement of this activity and during 1988-89 about 25.14 lakh sputum examinations were conducted in the Primary Health Centres.

The targets for 1989-90 in respect of New T.B. Case Detection is 16 lakh and about 33.96 lakh in respect of sputum examination of New Chest Symptomatics at the Primary Health Centres. Upto the end of the 2nd quarter of 1989-90, about 7.63 lakh new T.B. cases (provisional) have been detected by the States and U.Ts and nearly 10.56 lakh (provisional) sputum examinations were conducted at the Primary Health Centres.

### B.C.G. Vaccine Laboratory, Madras

BCG Vaccine Laboratory, Madras, a sub-ordinate office under the Directorate General of Health Services, was set up in 1948 with the assistance of the WHO and UNICEF, to manufacture and supply BCG vaccine and Tuberculin PPD to all the States and Union Territories of India. The supply of FD BCG Vaccine to States and Union Territories is done under the Expanded Programme of Immunization and Universal Immunization Programme, as per allocations fixed by the Government of India. The biologicals are also supplied to medical institutions and private practitioners,

on payment. This is the only laboratory in India engaged in the production of FD BCG Vaccine and Tuberculin PPD.

The biologicals produced and supplied during the period from April to September, 1989 are given in Table II.

**Future Plan of Action :** The Expansion of BCG Vaccine Laboratory included in the VII Five Year Plan with outlay of Rupees One Crore is exclusive of imported machinery costing about US \$ 1.2 million in the UN price, arranged through

UNICEF, consisting of three ES/100 automatic Ampoule Sealing Machines from Japan and one Industrial Type Freeze Drier and one Vacuum Desiccator from France. The machines are expected to reach Madras Port shortly. The production capacity is proposed to be increased from the present installed capacity of 12 lakh ampoules of 20/50 doses to about 25 lakh ampoules of 20/50 doses to meet the National requirements of FD BCG Vaccine under the Expanded Programme of Immunization and Universal Immunization Programme.

Table II

	Production (In Lakhs)		Supply (In Lakhs)	
	Ampoules/ Vials	Doses	Ampoules/ Vials	Doses
<i>FD BCG Vaccine</i>				
20 doses per ampoule	7.03	140.60	7.56	151.24
<i>Tuberculin PPD RT-23</i>			2.99	59.90*
100 doses per vial 1 TU/dose	0.11	11.48	0.11	10.87
<i>Special Preparation (x10<sup>3</sup>)</i>				
2TU	0.105	10.5	0.255	25.50
5TU	—	—	0.127	12.70
10TU	—	—	0.102	10.20

\*Due to increased allotment to the States, the requirement of vaccine was met by import through UNICEF from the Japan BCG Laboratory, Tokyo.

## NATIONAL PROGRAMME OF CONTROL OF BLINDNESS

ACCORDING to a sample survey undertaken by ICMR in 1971-73, India has 9 million blind persons (i.e. 1.4% of the population) who cannot see well at 6 metre's distance, and another 45 million people suffer from visual impairment. The National Sample Survey Organisation carried out a population based Survey and reported 3.47 million blind persons (i.e. 0.5% of the population based on 1981 census) who could not see well at 3 metre's distance. A country-wide Blindness Survey is currently in progress to assess the existing magnitude of the problem.

Table III  
CATARACT OPERATIONS

Year	Target	Performance	Achievements
1981-82	Not fixed	5.50 lakh	—
1982-83	13.36 lakh	9.04 lakh	68%
1983-84	12.58 lakh	10.69 lakh	85%
1984-85	12.78 lakh	11.34 lakh	89%
1985-86	13.84 lakh	12.18 lakh	88%
1986-87	13.83 lakh	12.08 lakh	87%
1987-88	12.25 lakh	11.93 lakh	97%
1988-89	12.25 lakh	11.18* lakh	Provisional till March, 1989.
1989-90	12.84 lakh	1.99 lakh	Provisional till August, 1989.

\*Figures provisional as final reports are still awaited.

**Plan of Action:** The National Programme for Control of Blindness was launched throughout the country by the Government of India in 1976. The ultimate aim is to reduce the blindness in the country from 1.4% to 0.3% by the year 2000 A.D. To achieve this aim, the programme is providing immediate relief to the needy by camp approach and by establishment of permanent eye care facilities with graded expertise at different levels coupled with 'Health Education' measures.

Performance under Cataract Operation is given in Table III.

**New Ideas put into Force:** Establishment of District Mobile Units and strengthening of Eye Banks has been taken up in a phased manner; Nation-wide blindness survey is being conducted; Group and continuing educational activities have been planned in the form of Fellowships and Workshops; Guidelines for conducting eye camps by voluntary organisations have been reviewed by a Committee of Health Ministers from different zones; and revised.

**Plan, Time-bound for 1989-90:**

- (a) *Infrastructure*
  - Strengthening of PHCs 200
  - District Mobile Units 10
  - Eye Banks 24
- (b) *Cataract Operations* 12.84 lakh
- (c) *Training Ophthalmic Asstts* 1000  
PHC Medical Officers 1000
- (d) *Other activities*
  - Regional Meetings 4

**Problems:**

- (a) Inadequate Development of Infrastructure.
- (b) Uneven Voluntary Efforts for Cataract Operations.
- (c) Inadequate Involvement of Medical Colleges.
- (d) Insufficient Health Education Infrastructure.

**Steps taken:**

- (a) Ophthalmic Assistants' Training Programme has picked up momentum. Ophthalmic Assistants are being posted after completing the training.
- (b) A Committee of Directors of Health Services has been constituted to review eye camp activities by Voluntary Organisations.

(c) State Ophthalmic Cells have been constituted in 18 major States to coordinate the programme activities coming under the Directors of Health Services and Directors of Medical Education in different states.

(d) Health Education activities have been intensified.

(e) Monitoring and Evaluation mechanism of the Programme is proposed to be strengthened and streamlined with the assistance of DANIDA and W.H.O.

## NATIONAL GOITRE CONTROL PROGRAMME

**T**HE National Goitre Control Programme was launched by the Government of India at the end of 2nd Five Year Plan with the following objectives:

- (i) Identification of the goitre endemic areas;
- (ii) To supply iodised salt in place of common salt in the goitre endemic areas;
- (iii) To assess the impact of goitre control measures over a period of time.

Nearly 167 million people are estimated to be living in the known goitre endemic regions of the country which exist in the entire sub-Himalayan region and in almost all the States viz. entire States of Jammu & Kashmir, Himachal Pradesh, Arunachal Pradesh, Haryana, Punjab, Uttar Pradesh, Goa, Tripura, Manipur, Bihar, Meghalaya, Mizoram, Assam, Nagaland, Sikkim, UTs of Chandigarh, Delhi and Dadra and Nagar Haveli, 23 districts of Madhya Pradesh, 7 districts of Maharashtra, 10 districts of West Bengal, 3 districts of Gujarat, 5 districts of Andhra Pradesh, 6 districts of Karnataka, 1 district of Kerala and 2 districts of Rajasthan. Nearly 45 million people are estimated to be suffering from goitre in these regions and another 6-8 million are estimated to be suffering from other Iodine Deficiency Disorders such as mental retardation, cretinism etc.

In view of the wide prevalence of goitre and other Iodine Deficiency Disorders in almost all the States/UTs, the Government of India have introduced the scheme for 'Universal Iodisation of edible salt in a phased manner by 1992'.

In order to augment the existing production of iodised salt, the Government of India have since liberalised production of iodised salt under the Private Sector. Licences have also been issued to nearly 500 salt manufacturers out of which nearly 337 have commenced production. The installed capacity of these units is nearly 47.24 lakh MT as on 31 March, 1989. A record production of 21.90 lakh MT was achieved in 1988-89. During the year 1989-90, it is envisaged that the production of iodised salt will rise to 30.00 lakh MT. From April to September, 1989, a quantity of 9.60 lakh MT has been produced and distributed to various States/UTs.

**Targets and Achievements:** The scheme to iodise the entire edible salt has the following phase-wise targets of production and distribution:—

### Production of iodised salt

Year	Target	(in lakh MT)
		Achievement
1986-87	7.5	7.72
1987-88	16	16.87
1988-89	22	21.50
1989-90	30	9.60 (up to 9/89)
1990-91	40	—
1991-92	50	—

## NATIONAL SEXUALLY TRANSMITTED DISEASES CONTROL PROGRAMME

**I**N order to manage and control STD at the national level and uplift the programme from the grass-root level. The STD control programme during the Sixth Plan was

*Annual plan 1989-90:* An outlay of Rs. 400 lakh has been approved. So far, 15 States and 2 UTs have banned the sale of non-iodized salt.

(i) During the current financial year, the National Goitre Control Programme has been extended to the entire UT of Dadra & Nagar Haveli. The remaining State Governments have also been advised to issue notifications banning the sale of salt other than iodised salt under PFA Act in their States/UTs.

(ii) The States of Haryana, Andhra Pradesh, Arunachal Pradesh, Bihar, Chandigarh, Delhi, Gujarat, Madhya Pradesh, Maharashtra, Karnataka, Kerala, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Uttar Pradesh have set up goitre control cells in their Health Directorate. The remaining States/UTs have also been advised to set up the same.

**Financial Assistance to States/UTs:** Financial assistance towards the establishment of goitre control cell @ Rs. 1 lakh has been budgetted for each State/UT during 1989-90. Similar assistance has been provided for carrying out health education activities and surveys in the remaining districts of respective States/UTs.

**Monitoring:** The Programme is being monitored in the following manner:

1. Production of Iodised salt vis-a-vis targets; and
2. Quantities of iodised salt despatched/lifted by the goitre endemic States against the allocated quota.

**I.E.C. Activities:** An I.E.C. package on goitre has been finalised in cooperation with UNICEF. Posters and pamphlets prepared by DGHS/CHEB have been sent to various States/UTs for promoting the use of iodised salt.

inducted as a purely Central sector scheme with 100% Central assistance envisaging thereby teaching, training and research in the field of Sexually Transmitted Diseases. For

the purpose, Regional STD Teaching-cum-Training Centres; Regional STD Reference Laboratories; and Regional Survey-cum-Mobile STD Units were established at Calcutta, Delhi, Hyderabad, Madras and Nagpur to cater on a zonal basis. The Regional STD Teaching-cum-Training Centres are involved in conducting training and orientation courses for the in-service medical and para-medical personnel working at the district and periphery level in the discipline of venereology.

Health education materials are also being produced for bringing about awareness amongst the general public about the seriousness of the disease; and community education through mass media.

During the Seventh Plan, the Sexually Transmitted Diseases Control Programme functioned as a purely Central sector scheme with 100% Central assistance and remains to fulfil the objectives of the scheme as envisaged during the Sixth Plan. The Seventh Plan allocation for the programme is Rs. 100 lakh and the Annual Plan allocation for 1989-90 is Rs. 20 lakh.

The National STD Control Programme has been proposed to be operated as a purely Central sector scheme during the 8th Five Year Plan with some additional components in view of the reported incidence of HIV infection in the country.

**Treatment Facilities:** There are 378 STD clinics functioning in the country, which provide diagnostic and therapeutic services to the patients. Treatment facilities are also available in the Skin & STD Departments of the Medical Colleges and Hospitals and medicines are also provided free of cost to the patients. Voluntary organisations are also in-

involved in the treatment of sexually transmitted diseases.

**Training:** The achievements made in the training of health personnel are:

Category	Projected target	Achievement
Medical Officers	1000	312
Para-medical functionaries	1200	402

**Inter-laboratory evaluation of VDRL test:** The programme for inter-laboratory evaluation and standardisation of specific test for syphilis (VDRL) was instituted by the Government of India in 1966. The Central STD Reference Laboratory of the Institute of Venereology, Madras, over the years have conducted as many as 23 such evaluation activities where District Hospital laboratories, P.H. Laboratories, State Bacteriological laboratories, Medical College Hospital laboratories etc. participated. During the Seventh Five Year Plan, the Central STD Reference laboratory has conducted 5 such evaluation programmes and the 6th programme is under progress. As many as 295 laboratories so far participated in the programme.

**Epidemiology-cum-survey:** So far, no surveys at the National level have been undertaken by the Government of India to exactly understand the index of the disease in the country. The Regional STD Survey-cum-Mobile Unit at the Institute of Venereology, Madras, has however conducted 46 camps in the city and industrial slums of Madras. The brief report of the survey is as follow:

Screening done VDRL reactive HIV antibody		Elisa (+ve)
1760	170	12

was: (i) to understand the mode of transmission of the disease in different parts of the country, (ii) to assess the status of HIV infection and its distribution within selected population and (iii) monitor changes in prevalence of HIV infection in selected groups.

Under the programme, the Indian Council of Medical Research has established 28 exclusive zonal blood testing centres in the metropolitan cities of Bombay, Calcutta, Delhi and Madras to test the blood donors by establishing linkage with the blood banks.

For efficient clinical management of HIV infected persons and AIDS cases, facilities have been developed at 10 medical colleges of the country at present.

The Government of India in collaboration with the W.H.O. has so far organised 11 training courses for physicians and nurses in the clinical management of AIDS cases in different parts of the country. The medical officers so far trained include 220 doctors and 110 nurses.

**Health Education:** The Central Health Education Bureau of the Directorate General of Health Services has developed health and publicity material for information of the general public. 36 hoardings have been developed and displayed in 16 States. Printed material (posters and folders) were prepared and sent to all the medical colleges hospitals, State Health Directorates, National Council for Education Research and Training (N.C.E.R.T.), jails, police departments, universities and to the public. 100 bus pannels were developed and installed for a period of 6 months in the local and inter-State covering the States of Uttar Pradesh, Punjab, Haryana, Himachal Pradesh, Jammu & Kashmir, Madhya Pradesh and Rajasthan. 100 kiosks were put in and around Delhi University for a period of 12 months. 144 cinema slides were released in 77 cinema halls in Delhi.

The scheme is proposed to be retained as a purely Central sector Scheme during the 8th five year plan.

## NATIONAL AIDS CONTROL PROGRAMME

**I**N India, Our National AIDS Control Programme has three major components viz. surveillance, health and community education and ensuring safety of blood and blood products. The Government

of India in collaboration with Indian Council of Medical Research, had established 43 surveillance centres in different parts of the country and 4 referral centres. The purpose of conducting the screening programme

## NATIONAL MENTAL HEALTH PROGRAMME

The Government of India decided to launch the National Mental Health Programme during 7th Five Year Plan period with the objectives to ensure availability and accessibility of minimum mental health care for all, in the foreseeable future, particularly to the most vulnerable and under-privileged sections of population; to encourage application of mental health knowledge in gene-

ral health care and in social development; and to promote community participation in the mental health service development and to stimulate efforts towards self-help in the community.

The Planning Commission has tentatively allocated a sum of Rs. 1 crore for implementing the programme during the 7th Five Year Plan period.

## NATIONAL DIABETES CONTROL PROGRAMME

The National Diabetes Control Programme was included in the 7th Five Year Plan as one of the Central Health Sector Programmes and was allocated a sum of Rs. 25 lakh to initiate District Diabetes Control Programme. With this object in view, it was recommended that infrastructure for monitoring and evaluation at the national level be created during 1986-87 with identification of districts and initiation of exploratory contacts with the State-level health functionaries so as to implement programme in two districts during 1987-88, additional 2 districts in 1988-89 and finally one additional district in 1989-90. Therefore, the District Diabetes Control and Care Programme was launched in two districts of Tamil Nadu, namely Salem and Sou'n Arcot in line with the National Programme. This has been approved by the Planning Commission as well as by this Ministry.

*District Diabetes Control Project, Tamil Nadu: A Situation analysis:* Epidemiological surveys show that the prevalence rate of diabetes mellitus varies from 2 to 4 per cent in the population studied in India. A multi-centre study sponsored by ICMR, based on population sample of 33,394 (urban and rural) showed that overall prevalence of diabetes is 2.04% in urban and 1.2% in rural population about the age of 15 years. In both population groups combined, the prevalence was 1.6%.

### Objectives of the Programme:

- (a) Identification of high risk subjects at early stages and imparting appropriate health education with focus on primary prevention of diabetes.
- (b) Early diagnosis of disease and institution of appropriate management so as to reduce morbidity and mortality (secondary prevention) with emphasis on vulnerable groups e.g. gestitional diabetes.
- (c) Prevention, arrest or slowing of acute metabolic as well as chronic cardio-vascular-renal complications of the disease.
- (d) Provision of equal opportunities to ensure holistic as well as physical attainment and job satisfaction thus ensuring social and emotional adaption leading to an improved quality of life.
- (e) Identification of those with partial or total physical handicaps due to disease to ensure

## DIARRHOEAL DISEASES CONTROL PROGRAMME

Acute diarrhoeal disease is one of the major causes of morbidity and mortality in India, especially among infants and children below 5 years of age.

On the recommendation of the World Health Assembly, the National Diarrhoeal Disease Control

their rehabilitation with emphasis on optimal organ or body function.

*Primary Rural Health Care:* The intervention strategy is based on the basic premise with diabetes health care as a part of the primary health care. The related aspects of diabetes mellitus have been included in the basic concept of primary health care.

*Secondary level Health Care:* The secondary level of diabetes health care is envisaged at Taluk hospital or district hospital. Referral of diabetic patients from the health centres to the Taluk health centre's level is generally required for patients like; (a) a pregnant diabetic by consultation between the physician expert and obstetrician is considered necessary; (b) an insulin dependent diabetic where appropriate expertise is needed to establish a good control; (c) at this stage there will be a coordinated team effort between physicians, nurses, dieticians, social workers and the allied health persons interested in diabetes.

*Tertiary level Health Care:* The main objective at this level is to provide highly specialised units capable of providing laboratory as well as management skills for the care of the diabetic. It is envisaged that such specialised units would exist at the medical college where appropriate diabetes care facilities be provided to all those who are referred either directly from the primary health care centre or through district hospitals. The other dimension of work at the tertiary level emphasises the research component. Beginning in this direction has already been made by the Research Section of Diabetes Association of India and various expert groups have been constituted.

Programme was launched in 1981. The following approaches are being promoted:

- (i) To reduce mortality with Oral Rehydration Therapy as early as possible in the course of

(Contd. on page 200)

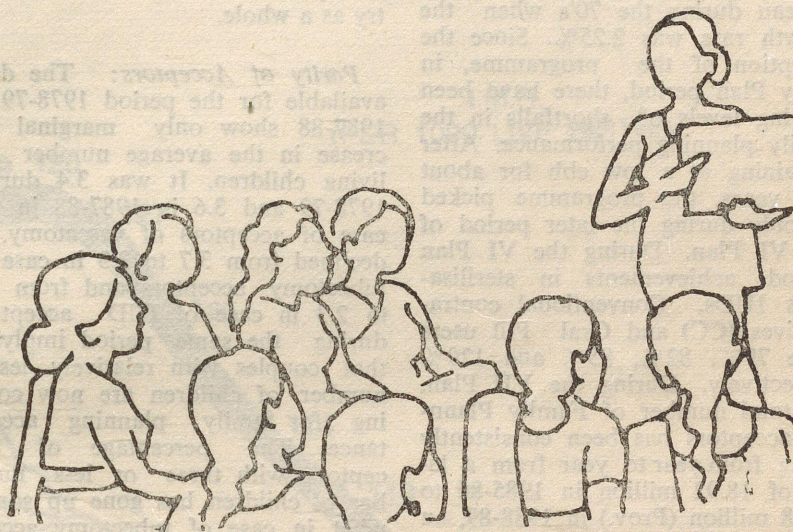
# NATIONAL FAMILY WELFARE PROGRAMME

One of the crucial problems facing the nation today is the burgeoning population which has been growing at an alarming rate. India's population which was 342 million in 1947 is estimated to have crossed 807 million by March 1989. In 2.4 percent of land area, India has 15% of World's population. Our population is increasing by 16 million every year.

THE demographic profile of the country has serious implications for overall socio-economic development. Ever-increasing numbers have over-shadowed the achievements that the nation has made on economic front. Even though better health services have helped to bring down the death rate considerably, birth rate still continues to be very high. This calls for a determined bid to bring down the birth rate.

The National Family Welfare Programme was started in the country as an integral part of its development plans in the year 1952. The approach under the first two plans was mainly 'clinical' under which facilities and services were created. An 'extension approach' was adopted in the Third Plan which envisaged expansion of services and facilities and carrying the message of small family norm to the people. The Programme was integrated with Maternal and Child Health Care. It was intensified and made goal-oriented in subsequent Plans. Presently, the Programme is pursuing the goals-stipulated under the National Health Policy.

A correlation between high-infant mortality and the desire to have a large number of children is well accepted. The infant Mortality Rate (IMR) per thousand live births on all India basis which was as high as 129 in 1976 has come down to 94 in 1988 as per SRS estimates. But this is still quite high in our country as compared to developed nations of the world. The IMR continues to have sharp variation from State to State and in different areas of the same State also.



## Policy Framework

Under its National Health Policy approved by Parliament in 1983, India is committed to attain the twin goals of 'Health for All' and a 'Net Reproduction Rate of Unity' by the year 2000 AD through the Universal provision of comprehensive primary health care services to all and an easy access to family planning and maternal and child health care facilities. The National Health Policy has enunciated the broad policy framework for attaining these goals, attainment of which would require securing of complete integration of all plans for Health and Human Development with the overall national socio-economic development process.

*Goals to be Achieved:* The major long-term goal to be achieved for the country is to reach a replacement level of Unity (NRR=1) by the year 2000 AD. The demographic goals as laid down in the Na-

tional Health Policy for 2000 AD are as follows :

- (a) Crude Birth Rate—21 per thousand
- (b) Crude Death Rate—9 per thousand
- (c) Infant Mortality Rate—Below 60 per 1000 live births
- (d) Effective Couple Protection Rate—60%
- (e) Life Expectancy at birth—64 years.

The corresponding goals to be reached by 1990 are: crude birth rate of 29:1; crude death rate of 10.4; infant mortality rate of 87 per thousand live births and couple protection rate of 42 per cent.

## Programme Implementation

The promotion of small family norm is primarily based on voluntary acceptance of the concept of responsible and planned parenthood by the eligible couples. The parents are encouraged to adopt a 'two-child

norm—male, female or both of either sex—through their independent choice of family planning method best suited to the acceptors. Family Planning services are offered through the total health care delivery system.

### Performance under the Programme

The programme is estimated to have averted over 106 million births in the country so far. The annual exponential growth rate of population which rose from 1.25% in the 40's to 1.96% in the 50's and 2.20% in the 60's, reached a plateau during the 70's when the growth rate was 2.25%. Since the inception of the programme, in every Plan period, there have been varying levels of shortfalls in the family planning performance. After remaining at a low ebb for about five years, the programme picked up only during the later period of the VI Plan. During the VI Plan period, achievements in sterilisations IUDs, Conventional contraceptives (CC) and Oral Pill users were 79%, 82%, 85% and 129% respectively. During the VII Plan, the total number of Family Planning acceptors has been consistently rising from year to year from a level of 18.92 million in 1985-86 to 24.38 million (Prov.) in 1988-89, an all time high record so far in any year since the inception of the programme. It is estimated that an overall couple protection rate of 41.7% (provisional) has been achieved as on March, 31, 1989.

### Family Planning Targets for 1989-90 and during the 7th Five Year Plan

The Family Planning targets for 1989-90 and during the 7th Five year Plan are given below :—

(Figures in million)

	Sterilisation	IUD Users	CC Users	OP Users
1989-90	5.45	5.25	14.02	2.09
1985-90	31.00	21.25	62.50	(CC& OP Users)

### Profile of Acceptors

*Age of Acceptors:* Available information on age of wives of acceptors and number of living children received on regular basis shows that the average of wives of va-

sectomy acceptors declined from 32.7 in 1973-74 to 32.4 in 1987-88. The percentage of vasectomy acceptors below the age of 30 years has gone down from 33.4% in 1973-74 to 31.8% in 1987-88. In case of acceptors of tubectomy, the mean age declined from 31.8 years in 1974-75 to 30.2 in 1987-88. During the same period, the percentage of tubectomy acceptors below the age of 30 years increased from 37.4 to 51.9 in case of acceptors of IUD also, a decline in the mean age has been observed; the mean age declined from 29.8 years in 1974-75 to 27.4 years in 1987-88 in the country as a whole.

*Parity of Acceptors:* The data available for the period 1978-79 to 1987-88 show only marginal increase in the average number of living children. It was 3.4 during 1978-79 and 3.6 in 1987-88 in the case of acceptors of vasectomy. It declined from 3.7 to 3.3 in case of tubectomy acceptors and from 2.8 to 2.3 in case of IUD acceptors during the same period implying that couples with relatively lesser number of children are now coming for family planning acceptance. The percentage of acceptors with three or less number of children has gone up somewhat in case of tubectomy acceptors during the same period. It decreased from 61.2% to 55.7% in case of vasectomy and increased from 53.6% to 64.2% in case of tubectomy acceptors during this period. In case of IUD, the percentage of acceptors with two or less, children increased from 47.5% in 1978-79 to 63.3% in 1987-88.

*Educational Status:* Available data on the educational status of wives of the acceptors for the year 1987-88 shows that percentage of illiterate acceptors was 46.2 in case of vasectomy, 45 in case of women who underwent tubectomy and 37.3 in case of IUD acceptors. Percentage of wives with matric or higher qualifications was 11.5 in case of vasectomy, 9.4 in case of women who underwent tubectomy and 12.9 in case of IUD acceptors.

### Demographic Impact and Trends

It is estimated that out of the 138.9 million eligible couples, 57.9

million couples constituting 41.7 per cent were effectively protected under various methods of family planning as on March 31, 1989. Since 1979-80, there has been an increase by about 19.4% points in the level of couple protection. The rate of step up in couple protection has accelerated during the last five years i.e. since March, 1983. Since inception of the programme, over 106 million births are estimated to have been averted. Because of increase in the performance levels during the last four years, the annual number of births averted has gone up from 5.5 millions in 1982-83 to 10.9 millions in 1988-89. The evidence of decline in the birth rate at national level is also available from the SRS estimates of the Registrar General of India. The estimate of birth rate as per SRS for the year 1987 was 32.2 which is lower by 9 points from the level of 41.2 that stood during 1961-71.

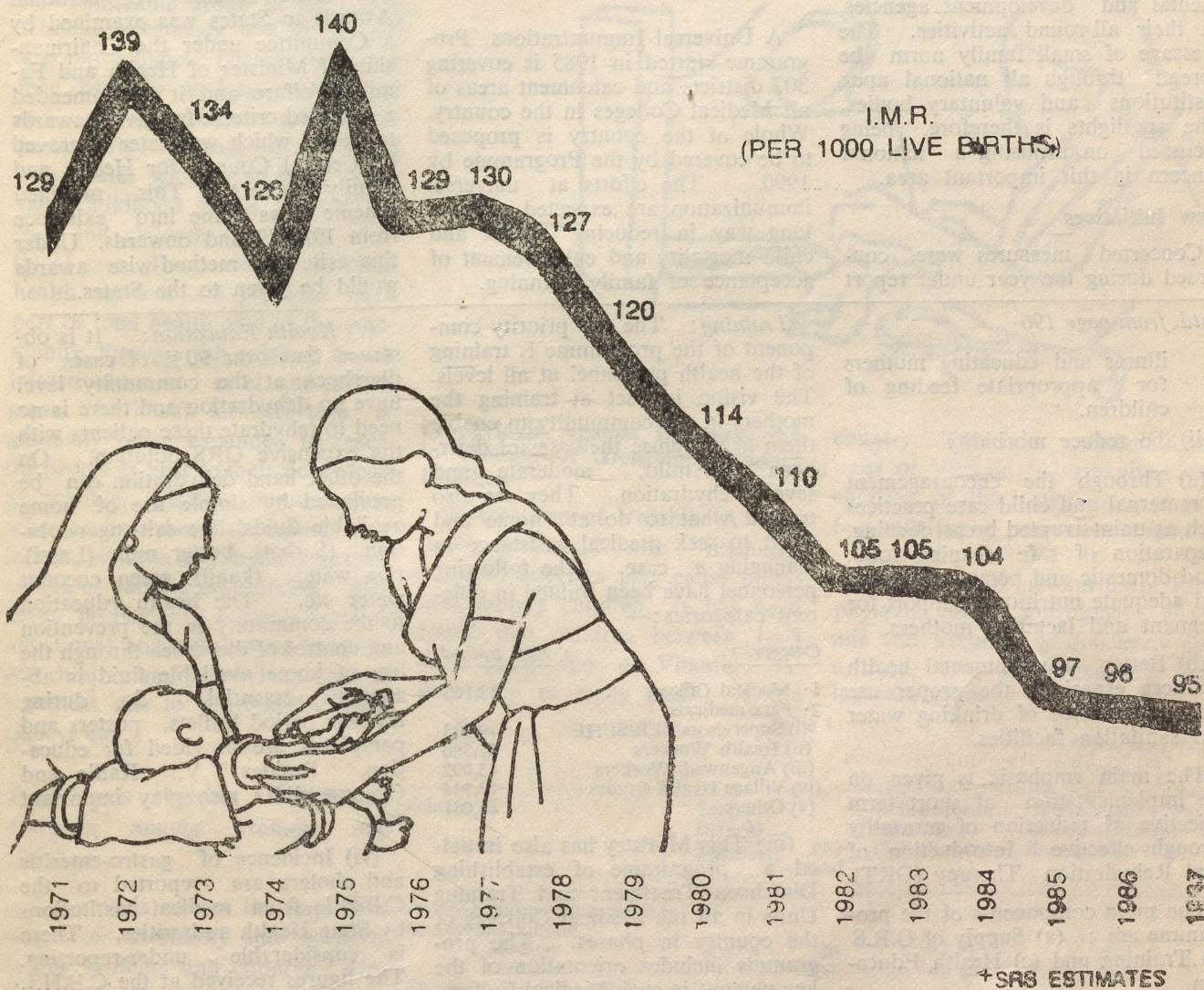
### Services and Supplies

Services and supplies are provided entirely free of cost at various levels of the health delivery system according to the facilities available. Though as an adjunct to these, supply of Nirodh and Oral Pills is additionally being made through commercial channels at a highly subsidised rate, supplies at all government-run centres remain free of charge.

### Incentives

Incentives which seek to directly influence fertility behaviour have been considered to play a crucial role in population control strategy. At present, some incentives are available to the employees are Central Government, Public Sector Undertakings and State Governments Central Government does not give any incentives to the members of the general public except a small amount by way of compensation for the loss of wages. Some States have introduced incentives in the form of lottery ticket schemes and a scheme of issuing Green Cards which entitle the acceptors of sterilisation, with two or less children, preferential treatment in certain feasible areas. Recently some States have also started schemes of issuing long term maturity bonds to the parents accepting terminal methods

# INFANT MORTALITY RATES+ ALL INDIA (1971 to 1987)



of family planning after daughters only.

### Future Policy Approach

A broad based support to programme promotion activities is sought to be achieved by securing effective linkages with other organisations and Ministries. It is increasingly being realised that family planning should not be the responsibility of one Ministry or Department alone and should rather reflect a commitment of all governmental and development agencies, in their all-round activities. The message of small family norm be spread through all national apex institutions and voluntary bodies. The spotlight is therefore, being focussed on arousing a national concern in this important area.

### New Initiatives

Concerted measures were continued during the year under report

*Contd. from page 196*

illness and educating mothers for appropriate feeding of children.

(ii) To reduce morbidity.

(a) Through the encouragement of maternal and child care practices such as uninterrupted breast feeding, preparation of safe weaning food, good domestic and personal hygiene and adequate nutritional support for pregnant and lactating mothers.

(b) Better environmental health practices especially the proper use and maintenance of drinking water and sanitation facilities.

The main emphasis is given on the implementation of short term objective of reduction of mortality through effective introduction of Oral Rehydration Therapy (ORT).

The main components of the programme are : (a) Supply of O.R.S (b) Training and (c) Health Education.

**Supply of ORS:** ORS packets are now being made available throughout the country through the entire health infrastructure. It is considered effective for all age groups. Additionally Oral Rehydration Salt is also available through Commercial Pharmaceuical outlets.

to focus public attention on vital matters having a bearing on the acceptance of small family norm which are also conducive to population stabilization in the foreseeable future.

These issues have centred round raising age at marriage, motherhood at right age, reproductive health, adequate spacing between births and ensuring child survival etc. impinging on acceptance of two-child family norm.

A Universal Immunizations Programme started in 1985 is covering 307 districts and catchment areas of all Medical Colleges in the country. Whole of the country is proposed to be covered by the Programme by 1990. The efforts at universal immunization are expected to go a long way in reducing infant and child mortality and enhancement of acceptance of family planning.

**Training:** The top priority component of the programme is training of the health personnel at all levels. The vision is set at training the mothers in the community to enable them to recognise the cases of diarrhoea with mild, moderate and severe dehydration. They are also trained what to do at home and when to seek medical assistance in managing a case. The following personnel have been trained in different categories:—

Categories	Nos. trained
1. Medical Officers	13,165
2. Para-medicals	
(i) Supervisors/BEE/SI/HE	19,093
(ii) Health Workers	67,380
(iii) Anganwadi Workers	45,092
(iv) Village Health Guides	12,744
(v) Others	44,031

(iii) This Ministry has also initiated a programme of establishing Diarrhoea Treatment and Training Units in all the Medical Colleges of the country in phases. The programme includes orientation of the key persons in each Medical College, who in turn will educate the Medical and Para-medical Staff about the ORT concept.

(iv) Modules on Treatment of Diarrhoeal Diseases have been printed and it has been translated in regional language also for training purpose.

The continued involvement of non-governmental sectors as also the people's own representatives in a more down to earth manner is expected to help gain new ground in this task. A meeting of women's organisations was convened on 30, November, 1989 to secure a more effective participation of women in implementation of various aspects of health and family welfare programmes.

**National Family Welfare Awards:** The entire scheme of National Awards to States was examined by a Committee under the Chairmanship of Minister of Health and Family Welfare and it recommended a modified criteria for giving awards to States which was later approved by Central Council for Health and Family Welfare. This modified scheme has come into existence from 1988-89 and onwards. Under this criteria, method-wise awards would be given to the States.

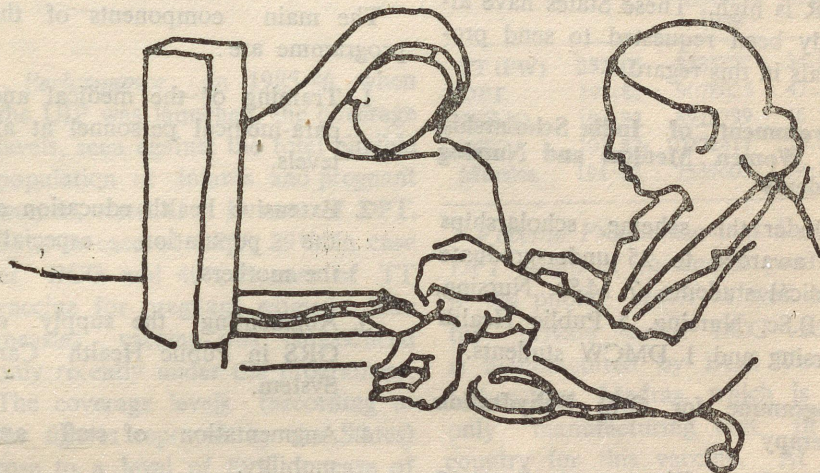
(v) **Health Education:** It is observed that over 90% of cases of diarrhoea at the community level have no dehydration and there is no need to rehydrate these patients with the expensive ORS Solution. On the other hand dehydration can be prevented by simple use of 'home available fluids' like salt-sugar-solution (Sarbat), butter milk (Lassi), rice water (kanji), green coconut water etc. The health education to the community in the prevention and control of diarrhoea through the use of home available fluid is absolutely essential. So, during training period leaflets, posters and pamphlets are provided for education. Besides T.V., Radio and Cinema slides also play important role.

(vi) Incidence of gastro-enteritis and cholera are reported to the C.B.H.I. from medical institutions by State Health authorities. There is considerable under-reporting. The figures received at the C.B.H.I. year-wise are as below:

Year	Gastro-enteritis		Cholera	
	Cases	Deaths	Cases	Deaths
1987	13783-52	5572	11423	224
1988	25432-10	3642	8953	215
1989	30592-28	1697	2763	51

# MATERNAL AND CHILD HEALTH PROGRAMME

**M**OTHERS and children are vulnerable group in the society. Though pregnancy and child birth are physiological phenomenon, women have to undergo stress and strain and as such need special care particularly in case of repeated pregnancies with short birth intervals. Childhood is the growing period and children also need additional care. The maternal and child health services are provided as a part of total health care to the community through the existing health infrastructure in rural and urban areas. The health infrastructure is gradually being expanded to reach the people as near to their door-steps as possible. Further, immunization schemes have been sponsored for infants, children and mothers against common vaccine-preventable diseases, prophylaxis schemes against nutritional anaemia among mothers and children and prophylaxis against blindness due to Vitamin 'A' deficiency, etc.



## Prophylaxis Against Blindness due to Vitamin 'A' Deficiency among Children

Severe form of Vitamin 'A' deficiency associated with malnutrition and infection may cause blindness among children. It has been found that children between 1—5 years show signs of Vitamin 'A' deficiency in many parts of the

country. Two lakh international units of Vitamin 'A' are given to children of this age group every 6 months as a preventive measure.

Targets and achievements in Prophylaxis against nutritional anaemia and Vitamin 'A' deficiency upto July, 1989 and financial outlays are given in the table I.

Table I

Refer. para 14.3.2  
(Figures in lakhs)

## Prophylaxis against Nutritional Anaemia among Mothers and Children

Anaemia is one of the important causes of morbidity and mortality among mothers and children. Under the scheme of prophylaxis against nutritional anaemia, pregnant and nursing mothers, acceptors of family planning and children of 1—5 years are given daily dose of iron and folic acid for a period of 100 days as a prophylactic measure.

Scheme	Target 1989-90		Achievement upto July, 1989 physical	% age achievement of Annual target during 1989-90
	Financial	Physical		
Prophylaxis against nutritional anaemia among :				
Mothers	800.00	220	44.92	20.4
Children		300	42.62	14.3
Prophylaxis against blindness among children due to Vitamin 'A' deficiency		300	80.59 doses	16.17

## Supply of Drugs and Vaccines

The Department of Family Welfare procures all vaccines, Iron and Folic Acid Tablets and Vitamin 'A' solution and supplies them to the

State Governments and UTs as per their requirement.

## Regional Institute of Maternal and Child Health

It has been envisaged to develop Regional Institutes of Maternal and

Child Health in States where Infant Mortality Rate is high. During 7th Plan, Rs. 15.00 lakh is being spent for establishment of the Regional Institute of Maternal and Child Health at Jodhpur in Rajasthan. During 8th Plan, Regional Institutes of MCH may be established in Uttar Pradesh, Madhya Pradesh, Orissa, Assam and Bihar where IMR is high. These States have already been requested to send proposals in this regard.

#### **Government of India Scholarship for Women Medical and Nursing Students**

Under this scheme, scholarships are awarded to 25 under-graduate medical students, 7 M.Sc. Nursing, 25 B.Sc. Nursing, 5 Public Health Nursing and 1 DMCW students.

#### **Programme for Oral Rehydration Therapy**

Diarrhoeal Diseases are a major health problem in the country especially among the children below 5 years of age. The incidence of the disease is more in the lower socio-economic segments. Longitudinal surveys carried out in the different parts of the country indicate that a child may suffer from as many as 3 episodes of diarrhoea per year. One hundred million children below 5 years of age suffer about 300 million episodes of diarrhoea of which 10% *i.e.* 30 million may develop dehydration and 1% *i.e.* 3 million may face death. To reduce the death rate among children below 5 years by about 40-50%, the Scheme of Oral Rehydration Therapy (ORT) has been taken up. The programme primarily aims at educating mothers on the prevention of deaths due to dehydration in diarrhoeal diseases by promoting the use of home made/available solutions, or the use of Oral Rehydration Salts (ORS) which is often life-saving. The medical and para-medical workers at all levels will be

trained in the education of the community as a whole and mothers in particular, under the programme.

During the Seventh Plan period, a total provision of Rs. 25 crore has been made for implementation of the programme of ORT—Rs. 517.18 lakh has been allocated for 1989-90.

The main components of the programme are:

1. Training of the medical and para-medical personnel at all levels.
2. Extensive health education of the population, especially the mothers.
3. Augmenting the supply of ORS in Public Health Care System.
4. Augmentation of staff and mobility.

Till September, 1989, 121 faculty members from the Health and Family Welfare Training Centres/ State Level Programme Officers have been trained at National Institute of Cholera & Enteric Diseases, Calcutta. The faculty members have further trained a total of 13,165 Medical Officers, 19,093 Supervisors, 67,380 Health Workers, 45,092 Anganwadi Workers and 56,775 others (which include teachers, TBA, HGs etc.) in their respective operational areas.

Kalawati Saran Children's Hospital, New Delhi, has been reorganised as training centre for trainers of Diarrhoea Training Units. 20 Paediatricians and 20 PSM faculty members from 20 medical colleges have been trained at this hospital. Two courses have been organised by the end of September, 1989. The trained faculty members are expected to set up Diarrhoea Training Units at their own medical college hospitals. 9 Diarrhoea

Training Units have been established and 6 more have to be established this year. In the long run, the medical students and interns will be fully trained in the management of Diarrhoea, thus avoiding the need of retraining them at later stages.

Indian Medical Association has also been actively involved in the programme and has trained 29,239 doctors upto August, 1988.

In addition to the inter-personal communication through medical and para-medical personnel, Health Guides, Anganwadi Workers, Trained Birth Attendants, School Teachers etc., regarding the use of ORS solution, advice on diet, etc., mass media, are also being utilised to spread the message of management of diarrhoea. Films, modules and training material have been prepared with WHO/UNICEF assistance.

Review of on-going ORT programme has been undertaken by an independent organisation in 24 districts of 6 selected States.

Procurement of ORS was made by the State Governments to cover all the districts under the ORT Programme. Free ORS packets are being made available through the Government health facilities *i.e.* Sub-centres, Primary Health Centres, dispensaries and hospitals. The WHO formulations of ORS are available as an over-the-counter drug at large number of outlets. Besides, social marketing of ORS would be promoted in the country so that Standardised ORS is available at nominal cost. By free and commercial distribution of ORS, it is being ensured that ORS packets are easily available to the population in all parts of the country. The Ministry is keen on encouraging only WHO-formula ORS and the same is being included in the Indian Pharmacopoeia.

## National Immunization Mission

**Introduction:** Universal Immunization Programme, declared as a Technology Mission in 1986 was launched in the year 1985-86 by taking 30 districts from 17 States. The major programme objectives were:

- to enhance the coverage levels of the eligible infants and pregnant women population against the vaccine preventable diseases to 85% in respect of infants and 100% in respect of pregnant women by 1990; and
- to achieve self-sufficiency in the field of vaccine production by the year 1989-90.

Whereas the first objective is the responsibility of the Department of Family Welfare, the objective of achieving self-sufficiency in the field of vaccine production has been made the responsibility of the Department of Bio-Technology. In the year 1989-90, the Missions are expected to cover the entire country.

### Year-wise target and achievement data for the various vaccines during 7th Plan period

Vaccine	1985-86		1986-87		1987-88		1988-89		1989-90	
	Tgt.	Achvt.	Tgt.	Achvt.	Tgt.	Achvt.	Tgt.	Achvt.	Tgt.	Achvt. (anticipated)
TT (PW)	12.86	10.36	15.20	11.66	16.93	14.96	22.66	16.18	25.13	20.10
D.P.T.	14.04	15.18	15.30	11.56	17.21	16.69	18.04	16.79	19.12	15.30
Polio	14.04	13.19	15.30	10.26	17.21	14.27	18.04	15.86	19.12	15.30
B.C.G.	14.04	13.08	15.30	11.12	17.21	16.35	18.04	17.38	19.12	15.30
Measles	—	—	5.70	3.71	11.21	10.05	15.76	12.42	19.12	15.30
DT	11.19	12.53	12.10	10.80	13.00	11.58	18.94	12.98	18.89	15.11
TT (10Y)	5.54	4.53	6.70	5.28	7.80	7.00	9.75	8.29	18.25	10.95
TT (16Y)	3.33	3.00	4.10	3.48	4.80	4.50	6.01	5.66	17.41	10.45

**Performance in 1989-90:** Under the Universal Immunization Programme, it is aimed to achieve

**Expanded Programme of Immunization:** Before the launching of the Universal Immunization Programme in 1985-86, vaccination services were being provided under the Expanded Programme of Immunization. The services were against Diphtheria, Whooping Cough, Tetanus (DPT) and Tuberculosis. Oral Polio vaccine was introduced in 1979-80 and the Measles vaccine in 1985-86.

**Performance:** In 1985-86, when the UIP was launched, the coverage levels, seen against the total eligible population of infants and pregnant women, were 41% in case of DPT, 36% in case of OPV, 29% in case of BCG and 40% in case of TT vaccine for pregnant women. The measles vaccine was introduced only recently under the programme. The coverage levels (according to the figures reported by the States) rose to a level of 80% in case of DPT, 75% in case of OPV, 79% in case of BCG, 55% in case of measles and 65% in case of TT (PW) at the end of 1988-89.

100% coverage of pregnant women and 85% of infants in all the districts of the country. Annual vac-

ination targets are : coverage of 252.05 lakh women with two doses of TT and 191.82 lakh infants with 3 doses of DPT and polio vaccines and one dose each of BCG and measles vaccine. Vaccinewise achievement till October, 1989 is given below in the table:

Performance under Universal Immunization Programme			
Vaccine	Annual target	Achvt upto October 1989	% Achvt. Annual target
TT (PW)	252.05	8585722	34.06
DPT	191.82	9078025	47.33
POLIO	191.82	8928799	46.55
BCG	191.82	10272417	53.55
Measles	191.82	7539605	39.31

**Vaccine Production and Supply:** DPT group of vaccine is produced in the public sector as well as in the private sector. BCG vaccine is manufactured by BCG Vaccine Laboratory, Madras, which is the only manufacturing unit in the country for this vaccine. At present, polio vaccine is imported for use in the programme. Polio vaccine is imported in bulk concentrate and after diluting, blending and ampouling, it is supplied by HBPCCL, Bombay to the various States. Serum Institute of India, a private sector firm has already started production of Measles vaccine in the country and is in a position to meet the total requirement of the country.

Statutory testing of vaccine is done by the National Control Authority at Kasauli. The vaccines received from foreign sources are released to the programme on the basis of summary test protocols and random samples taken for testing. It has been decided to set up a few more centres, to be notified by the Drug Controller of India, for statutory testing. Eight new institutions for field testing have been identified and additional equipment sanctioned for them.

**Supply of Equipment:** During 1989-90, 135 additional districts have been taken up under the UIP. These districts are being supplied 570 Chest Freezers 300 Ltrs., 6,302 chest refrigerators—140 Ltrs., 6,302 chest freezers, 7,390 CB 22 Ltrs., 22,100 Cold Boxes, 105,677 vaccine carriers with ice-packs and 1,28,035 day carriers with ice-packs. In addition to above sterilizers, autoclaves, steam pressure sterilizers, voltage stabilizers, dial thermometers, refrigerator repair kits and kerosene stoves, jeeps and vans have also been supplied to strengthen the distribution facilities.

**Urban Immunization:** In an endeavour to have a closer look at the problem of all urban sectors with regard to the immunization programme, a conference, held in 1987, discussed guidelines for taking Immunization to urban areas.

**Management Information System:** Management Information System plays a crucial role in programme planning as also in facilitating corrective action. National Industrial Development Corporation, a public sector undertaking, is helping in monitoring the functioning of the cold chain infrastructure. The National Informatic Centre is providing technical support in monitoring the supply of vaccines and achievement of the physical targets of immunization.

**Training:** Training and retraining of the field staff is an integral part of the Mission. At the national level, programme managers from the States as well as the districts are being trained. These officers in turn take up the training of the field level functionaries in the proper management of the immunization sessions. Several training materials suited to

the specific needs of the immunization programme in India have been prepared. A task oriented manual published in 1985 and revised in 1987 is now available in the major regional languages. The training modules are based on an adaptation of the WHO modules on planning and management of the EPI for mid-level managers.

Till date, a total of 731 officers have been trained at the national level. These include 580 officers of the rank of the District Immunization Officers. However, only 310 of the officers trained are actually available for the immunization work. At the State level training, the total number trained so far is 4,746 Medical Officers, 51,318 Female Multipurpose Workers and 51,273 other para-medical workers.

**Disease Surveillance :** Reliable disease surveillance data is essential not only to document impact of the immunization services but also to streamline operations to maximize the effectiveness of the immunization coverage in the control of vaccine preventable diseases. The increasing immunization coverage levels now being recorded in the country have resulted in a corresponding decline in the incidence of vaccine preventable diseases in places from where such data is available over a period of time. The disease surveillance system does not, however, at present meet the needs of the Mission in most of the States including the large States of U.P., M.P., Bihar and Rajasthan. A workshop on the surveillance of vaccine preventable diseases was organised in July, 1989 and has been followed up by meetings in Haryana, Punjab, Delhi and Gujarat. Further meetings on the surveillance of vaccine preventable diseases were held at Lucknow and in Himachal Pradesh recently.

## YOUR EYES DIABETICS BEWARE

- \* Diabetes is an important cause of blindness.
- \* Eye involvement is seen in 20-40% of diabetics.
- \* Retina, the sensitive layer of the eye responsible for vision, is damaged in diabetes (Diabetic retinopathy) such damage is related to the duration of diabetes. Longer the duration more are **the chances of retinal affection.**
- \* **Retinal damage (Retinopathy) can be treated by laser in early stages.** Eye treated by laser maintain better vision (sight) over a longer period of time than non-laser photocoagulated eyes.
- \* **However, all cases do not need laser. And it cannot be used for advanced cases.**
- \* Even if your vision (sight) is normal, you may have changes which can affect vision. To prevent this, get your eyes checked regularly (once in six months) by your eye specialist.
- \* Pregnancy, high Blood Pressure, smoking and family history are high risk factors for progression of retinal damage in diabetes.

*National Society for the Prevention of Blindness-India*

# RURAL HEALTH SERVICES

Primary Health Care approach seeks to provide universal comprehensive health care services relevant to the actual needs and priorities of the communities at a cost which people can afford. It is in this context that National Health Policy seeks to bring about shift in emphasis from hospital-based urban medical care to field-oriented health care. The creation of the primary health care infrastructure in the rural areas is, therefore, of prime importance for realisation of the objectives set forth in the National Health Policy and attaining the goal of 'Health for All by the Year 2000 A.D.'

**W**E have to achieve 100% of the targets set for establishment of sub-centres and Primary Health Centres (PHCs) by the end of the 7th Plan period. However, because of the resource constraints, only 50% of the Community Health Centres would be established by the year 1990. Coordinated efforts are being made under various rural health programmes to provide effective and efficient services to the people in the rural areas.

## Minimum Needs Programme

Numerous programmes and schemes are being implemented under the Minimum Needs Programme to provide Primary Health Care relevant to the actual needs of the community in the rural areas. The status of establishment of the sub-centres, PHCs and Community Health Centres under the Minimum Needs Programme, is as follows:

**Sub-centres:** The Sub-centres are being established on the basis of one centre for every 5000 population in general and for every 3000 population in hilly, tribal and backward areas. The total number of Sub-centres established upto the end of the 6th Five Year Plan period that is by 31st March, 1985 was 84,053 as against the estimated total require-

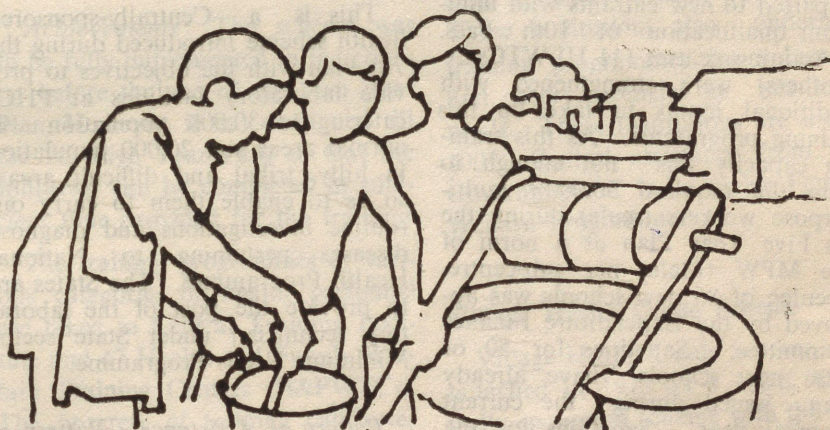
ment of 1.30 lakh. The progress is as under:—

Functioning as on 1.4.85	— 84,053
7th Plan Target (1985-90)	— 54,612
Functioning as on 1.4.89	— 1,21,767
Target 1989-90	— 14,502
Achievements during 1989-90	
(April-September, 1989)	— 107
No. functioning as on 30.9.89	— 1,21,874

**Primary Health Centres:** It is envisaged to establish the Primary Health Centres on the basis of one PHC for every 30,000 population in the plain areas and for every 20,000 population in hilly, tribal and backward areas. It is proposed to convert

all the existing rural dispensaries which are providing curative service only to function as primary health centres which will be providing package of promotive, preventive and curative services. The existing position of PHCs is given below:—

Functioning as on 1.4.85	— 10,705
7th Plan Target	— 12,392
Target 1989-90	— 3,578
Functioning as on 1.4.89	— 19,143
Achievement during 1989-90	
(April-Sept. 89)	— 41
Functioning as on 30.9.89	— 19,184



**Community Health Centers (CHCs):** It is proposed to establish rural hospitals with specialists facilities by upgrading the existing PHCs. Each of the upgraded PHC will have 30 beds. It is envisaged to cover a population of about 1 lakh. The position in respect of CHCs is given below:—

Functioning as on 1.4.85	—	759
7th Plan target	—	1,523
Functioning as on 1.4.89	—	1,665
Target 1989-90	—	297
Achievement during 1989-90 (April-Sept. 89)	—	1
Functioning as on 30.9.89	—	1,666

#### Scheme of Training of MPW (Male)

This scheme was initiated in 1982 to meet the future requirements of Multipurpose Workers (Male) after conversion of uni-purpose to multipurpose workers, it is a 100% Centrally sponsored scheme. Basic training of one year duration is imparted to new entrants with minimum qualification of 10th Pass. 47 training centres (44 HFWTCs + 3 others) were strengthened with additional inputs to take up this training programme. As this training capacity was not enough to train the required 50,000 multipurpose workers (male) during the 7th Five Year Plan at a norm of one MPW (Male) per sub-centre. Opening of 85 new schools was approved by the Expenditure Finance Committee. Sanctions for 50 of these new schools have already been issued during the current financial year. Sanctions for the remaining 35 new schools are still to be issued.

**Present status :** The training programme has already commenced at 44 Training Centres located in the States of Andhra Pradesh (4), Assam (1), Himachal Pradesh (1), Madhya Pradesh (4), Maharashtra (5), Kerala (2), Punjab (1), Rajasthan (2), Uttar Pradesh (7), Mizoram (1), Gujarat (2), Orissa (3), West Bengal (3), Manipur (1), Karnataka (2), Tamil Nadu (3), Jammu & Kashmir (1) and Haryana (1). Meghalaya has stopped the training after training one batch.

The scheme has also been sanctioned by the State of Bihar for 2

schools but training is still to commence.

Out of the 50 new schools sanctioned, training has commenced in 13 schools; Rajasthan (7), Assam (1), Tamil Nadu (2), West Bengal (2), Tripura (1). Training Schools have been sanctioned by the State Governments of Madhya Pradesh (10), Assam (1), Karnataka (2) and Punjab (2).

Schools are still to be sanctioned by the States of Andhra Pradesh (3), Uttar Pradesh (5), Bihar (4), Orissa (1) and Rajasthan (9).

Sanctions for the remaining 35 schools shall be processed after commencement of training at the 50 schools mentioned above.

#### Laboratory Facilities at PHCs and Rural Dispensaries

This is a Centrally-sponsored health scheme introduced during the 7th Plan with the objectives to provide laboratory facilities at PHCs catering to 30,000 population in normal areas and 20,000 population in hilly, tribal and difficult areas; so as to enable them to carry out routine investigations and diagnose diseases pertaining to National Health Programmes. The States are to provide the post of the laboratory technician under State sector Minimum Needs Programme.

**Pattern of Assistance :** Pattern of assistance admissible under the scheme is as follows:

1. **Non-recurring :** Expenses for equipment including Microscopes @ Rs. 5,000/- per unit.
2. **Recurring :** Laboratory reagents and glassware @ Rs. 1,000/- per unit per year.

The scheme has already been sanctioned for the States of Andhra Pradesh, Gujarat, Himachal Pradesh, Karnataka, Kerala and Rajasthan during the year 1988-89; whereas sanction for the remaining States has been issued during the year 1989-90. The target during the year 1988-89 and 1989-90 is to establish

1617 and 1500 laboratories respectively.

#### Training of Specialists and Paramedical staff

This is 100% Centrally-sponsored health scheme introduced during the 6th five year plan with the objective to train various categories of health personnel for the rural areas. The categories include first level specialists in the identified disciplines of Medicine, Surgery, Paediatric, Gynaec and Obstetrics, Laboratory Technicians, Pharmacists, Health Educators, Radiographers and other Paramedical Specialists. The scheme continued as such during the 7th Plan.

**Progress :** The scheme has not evoked a good response from most of the States and UTs. The reason being that this scheme only provides assistance towards training component whereas the employment is to be provided by the respective States and UTs. So far the scheme in regards to training of Laboratory technicians has been sanctioned to the States of U.P. (20 schools), Himachal Pradesh (7 schools) and Kerala (1 school). DHE course is in progress at the All India Institute of Hygiene and Public Health, Calcutta; Gandhi Gram Institute for Rural Health and Family Welfare, Gandhi Gram, Tamil Nadu; FWTRC, Bombay; and CHEB Delhi.

The scheme was recently reviewed by the Programme Implementation Committee wherein it was decided that no fresh sanctions will be issued under the scheme during the remaining 2 years of the 7th Plan. Planning Commission has already informed that this scheme stands transferred to State Sector Minimum Needs Programme from 8th Plan onwards.

The Plan allocation for the scheme was Rs. 1,200 lakh. As the scheme did not find favour with the State at the time of mid-term appraisal of the 7th Plan, the allocation was reduced to 300 lakh.

#### Female Health Worker Training Programme (ANM)

By 1-4-90, on the basis of accepted population norm that is 1 Sub-centre for 5,000 population in plains

and one Sub-centre for 3,000 population in hilly, difficult and tribal areas, 1.38 lakh sub-centres will be established. Each sub-centre is manned by one Female Health Worker (ANM) and one Male Health Worker. To train the required number of ANMs in the rural area, training capacity in the existing training institutions was suitably augmented by increasing the additional seats in the existing training schools and also by opening additional training schools in the States where there is acute shortage of ANMs.

There are 485 ANM Training Schools with an admission capacity of 23,646 functioning in the country. During the year 1988-89, 13,573 ANMs have been qualified.

**Female Health Assistant Training Programme (LHV) :** One female Health Assistant (LHV) will supervise the work of six sub-centres in the rural area. She will be providing technical assistance/guidance and support to ANMs who are working at Sub-centre level. Senior ANMs with 5 years of experience will be given six months promotional training to become Female Health Assistant (LHV).

There are 44 LHV Training Schools functioning in the country with an admission capacity of 3,221. During the year 1988-89, about 1,200 LHVs have been qualified.

#### Training of Dais

Majority of deliveries in the rural areas are conducted by Traditional Birth Attendants called dais. The overall aim is to train all untrained dais who are functioning in the rural area so that they will be able to conduct aseptic delivery. In order to improve the skills of dais and also to reduce Infant Mortality Rate and to involve them in the propagation of small family norm, a scheme for training of dais was introduced. During the year 1988-89, 14,683 dais

have been trained. It is proposed to train 10,000 dais during 1989-90. From the year 1974 to date, 5.85 lakh dais have been trained.

#### Training and Employment of MPWs (MPW Scheme)

The MPW Scheme was launched in 1974 under 50 : 50 Central assistance. The objectives of the scheme are:

- (i) To convert all existing uni-purpose workers at different levels into multi-purpose workers after reorientation training.
- (ii) Integration of organisation and structure on various health and family welfare programmes at PHC, district and State levels.
- (iii) Provide funds for manuals, kits and educational aids.

**Achievements:** The scheme was to be fully implemented in the country before the end of 6th Five Year Plan. However, it has continued till the 7th Five Year Plan so that the spill-over can be completed in sufficient time provided for the training.

The training programmes of various categories of health personnel are taken in Central Training Institute and 47 Health and Family Welfare Training Centres (H&FWTCs). The progress of training categories is as follows:

#### Progress in Training of Various Categories of Health Personnel

	Total no. trained as on 31.3.89	Total no. trained during 1988-89
1. Key trainers	864	20
2. Distt. Level Medical Officers	11,736	33
3. DEMOs/Dy. DEMOs	373	61
4. Medical Officers (PHC) as on 31.3.89	23,976	1,560
5. BEEs	6,022	221
6. HA(M)	29,641	1,174
7. HA(F)	20,175	998
8. HW(M)	89,374	2,837
9. HF(F)	91,484	5,003

**Training :** When MPW Scheme was started in 1974, 7 Central Training Institutes were initiated for conducting training programmes for the Key Trainers and the District level Medical Officers. Of late, it has been observed that due to lack of certain facilities and also as MPW Scheme is in wrap up stage, only 4 institutes that is FWTRC, Bombay; GIRH&FWT, Madurai; CHEB, Delhi and NIHFW, Delhi are working as Central Training Institutes.

There are 47 Health and Family Welfare Training Centres (HFWTRCs) distributed all over the country which impart training to the Medical Officers, Health Supervisors (Male and Female), Block Extension Educators and Computers. These institutions also undertake training programmes for voluntary and other agencies as per local needs. These Institutions are under 100% Central assistance from the Government of India under Family Welfare Programme.

#### Village Health Guide Scheme

Village Health Guide Scheme was launched in 1977 as a 100% Centrally sponsored scheme with the objective of training a person selected by the community for primary health care. On an average, one person per 1000 population/a village, is trained for 3 months and is equipped with a manual of instructions and a medicine kit. A stipend of Rs. 200 per month is paid during the training. Thereafter, a monthly honorarium of Rs. 50/- and medicines worth Rs. 50/- are provided to the trained Village Health Guides. The scheme suffered setback in 1979 when it was included in the category entitled for 50% Central assistance. The scheme was taken under Family Welfare Programme and 100% funding was resumed and a revised scheme was communicated to the States in 1981.

The salient feature of the scheme was that females should be selected as Health Guides and preferably be 30 years of age and should be residing in the village permanently. Male Health Guides were to be selected only if females were not available and preference was to be given to ex-servicemen, freedom fighters or a person known for his social service in the village. It was emphasized that VHGs should not consider her/his role as a source of income or a step towards future employment in Government. The Guide is meant to be a vital link between the community and health functionaries thereby ensuring community participation and preparing a cadre of volunteers selected by the community itself where socially inclined people can provide primary health care services. With greater emphasis on child survival and maternal health programmes in 1986, the States were requested to discontinue the services of male health guides and replace them by female VHGs. The VHGs in different parts of the country got a stay order on the communications of the Government of India. Hence, the States were requested not to give effect to the earlier communications and continue with the Male Health Guide who are on record. Excepting for the States of Gujarat, Assam, Rajasthan and Goa where Male Health Guides have been discontinued, the other States continue to Male Health Guide on their roles.

#### Maintenance and Strengthening of Health and Family Welfare Training Centres (H&FWTCs)

These training centres were set up under the Family Welfare Programme with 100% assistance by the Central Govt. to undertake in-service training programmes for health functionaries working in the field for delivery of primary health care services.

Initially, these H&FWTCs were taking up training of the staff under Family Planning Programme but from 1974 onwards Multipurpose Workers' Scheme was sanctioned in the country. They also took up the training of Medical Officers and Uni-purpose workers for the multipurpose concept. These training centres provide in-service training to all the family welfare and health functionaries working at the block level and below.

The 47 H&FWTCs are distributed all over the country out of which 10 are still in rented buildings. The following training programmes were undertaken by H&FWTCs during the year 1988-89:

1. Integrated Medical Officers . . . .3 weeks
2. Health Supervisors (Male & Female) . . . .2 weeks
3. Block Extension Educators . . . .30 days
4. Key Trainers of ANM Schools . . . .2 weeks
5. Basic Training of Health Worker (Male) . . . .1 year (from 1982 onwards)

They also undertake training of the health personnel as per requirement of the State Government. Also whenever there is emphasis on any programme (Oral Rehydration Therapy and Immunization), specialised training programmes are conducted by them.

#### Orientation Training of Medical and Para-medical personnel

This is a Centrally sponsored scheme under Family Welfare. It was started with the objective to train medical and para-medical personnel working at PHCs and Sub-centres including their trainers. The categories covered under the scheme con-

sist of Medical Officer, PHC, Health Assistant (Male and Female), Health Asstt. (F), Health Worker (M) and Health Worker (F) and Key trainers. Each category is placed to be imparted training in the same institution, where they had their basic training. The duration of training is two weeks.

*Progress* : The scheme has already been sanctioned to the States of Maharashtra, Himachal Pradesh, Gujarat, Karnataka, West Bengal, Haryana, Punjab, Kerala, Andhra Pradesh and Madhya Pradesh and also to the U.T. of Andaman and Nicobar Islands. Proposals have also been received from the States of U.P. and Jammu and Kashmir and UTs of Arunachal Pradesh and Dadar & Nagar Haveli.

#### Training of Community Health Officers

The scheme was initiated by the Ministry of Health and Family Welfare in 1982. This scheme at present is being implemented on an experimental basis and envisages the training of an officer for preventive and promotional aspects of health care.

He/She is to be selected from the various supervisory cadres of health functionaries working in the rural areas for at least seven years and is to be posted at the new Primary Health Centres after undergoing a training of six months duration at any of the 3 training institutions mentioned below:

- (1) Rural Health Training Centre, Najafgarh, Delhi.
- (2) Family Welfare Training & Research Centre, Bombay.
- (3) All India Institute of Hygiene and Public Health, Calcutta.

*Present Status* : This scheme has not found favour with the States and a total of 76 candidates have been trained since the inception of the scheme. △

# ROLE OF TECHNOLOGY IN PRIMARY CARE OF THE NEWBORN BABIES

DR. MEHARBAN SINGH

"The basic components of perinatal care to prevent neonatal deaths and ensure infant survival should include steps to ensure safe delivery, preferably at the health post, by trained health professional having the knowledge and skills to resuscitate an asphyxiated baby. The maintenance of asepsis, prevention of tetanus neonatorum, provision of warmth and promotion of breast feeding are the other key components of basic neonatal care which can be readily provided in the community by appropriate and cheap technology".

THE neonate signifies the beginning of life and provides a foundation for future health of the nation. Most births (80%-90%) are taking place at home and the majority of these deliveries are conducted either by untrained traditional birth attendants or relatives. The situation is worse in urban slums. It is crucial to provide basic perinatal care in the community in order to achieve any significant reduction in perinatal/neonatal morbidity and mortality at the national level. The fundamental requirements for provision of basic care in the community are listed in *Table I*.

*Table I. Basic needs for provision of minimal perinatal care*

1. Sound health infrastructure with a solid BASE.
2. Accessibility and acceptability of health services by the community.
3. Availability of adequate number of trained health staff (knowledge, skills, and devotion).
4. Availability of appropriate equipments and drugs.

5. Effective communication to catalyse referral system (roads, transport, telephones).

**What type of Technology is required at the grass route level?**

Technology is defined as the some total of knowledge and skills available to the human society. We must evolve suitable and appropriate technology to serve our needs and requirements. It is desirable that we should strive for transfer of technology but it must be adapted to serve our special needs by making innovations. In other words, we must find indigenous solutions to Indian problems. The technology for primary health care must be low cost, fabricated by indigenous material and components. It should be culturally acceptable, withstand ecological hazards of heat and humidity. It is preferable to design instruments which work on either solar energy or manually in view of the non-availability/uncertainty regarding the availability of electrical energy.

**Minimal perinatal/neonatal care**

The components of minimal perinatal/neonatal care have been highlighted by the National Neonatology Forum on several occasions and are summarised in *Table II*. The basic components of perinatal care to prevent neonatal deaths and ensure infant survival should include steps to ensure safe delivery, preferably at the health post, by trained health professional having the knowledge and skills to resuscitate an asphyxiated baby. The maintenance of asepsis, prevention of tetanus neonatorum, provision of warmth and promotion of breast feeding are the other key components of basic neonatal care which can be readily provided in the community by appropriate and cheap technology.

*Table II. Components of minimal perinatal/neonatal care*

1. Basic antenatal care
2. Safe delivery and care of the baby at birth (resuscitation)
3. To provide warmth

4. To prevent bacterial infections including tetanus neonatorum
5. To promote breast feeding
6. To ensure home care of low-birth-weight babies
7. To identify and refer high-risk and sick newborn babies

#### Basic antenatal care

During the first trimester, provision of adequate nutrition including supplements of iron and folic acid tablets, immunization with tetanus toxoid and provision of rest during last trimester of pregnancy are crucial to promote the growth of fetus and prevent developmental malformations. The concept of identification of high-risk pregnancy should be simplified. The simple methods for assessing the severity of anemia (clinical and anemiameter) and detection of albuminuria with the help of uristix need to be evaluated. There is a need to construct uterine (gravidograms) and abdominal girth charts during pregnancy to serve as simple reckoners for identification of intrauterine growth retardation in the community.

#### Care of the baby at birth

The availability of adequately trained birth attendants is more important while requirement of equipments or technology are minimal in the community. The disposable delivery kits should be distributed to all pregnant women (one or two blades, cotton, antiseptic lotion, soap and plastic sheet). The birth attendants should be trained to use simple criteria for assessing the condition of the baby at birth such as cry, breathing efforts and colour. They should be provided with re-useable *de Lee* suction traps or readily cleanable transparent suction bulbs. Neonatal masks with attachment for a bag or facility for mouth to bag ventilation are useful for resuscitation of asphyxiated newborn babies. The oxygen cylinder should be available at the primary health centre and health

workers should be imparted basic knowledge to give oxygen therapy to newborn babies. Administration of oxygen with the help of catheter, introduced through the nose for a distance midway between the external naris and lobule of the ear, by maintaining oxygen flow rate at 0.5 litre per minute has been found to be as effective as head-box. The birth attendants should be provided with cheap and sturdy hanging type of spring-balance to weigh the babies. Alternatively, tricoloured measuring tapes (similar to Shakir tapes) should be provided to the health workers to use chest circumference and mid-arm circumference (MAC) as reliable surrogates of birth-weight. Chest circumference of  $\leq 30.0$  cm and  $\leq 27.5$  cm reliably identify neonates  $\triangleq 2500$  g and  $< 2000$  g respectively with a high degree of specificity and predictive value. The corresponding values for MAC are  $\leq 9.0$  cm and  $\leq 8.5$  cm respectively.

#### Provision of warmth

Adequate maintenance of thermoneutrality is crucial for the survival of newborn babies. The environmental temperature which may be uncomfortable for an adult may impose serious thermal stress to a low birth-weight baby. The health workers should be taught to promptly dry the babies after birth and effectively clothe them by ensuring use of a cap, gloves, stockinets etc. The baby bath should be delayed till the baby's temperature stabilizes. The baby should be nursed in close proximity to the mother so that he gains heat from the maternal warmth. Mothers and health workers should be explained the technique and art of keeping the babies warm and evaluation of body temperature by touching the trunk and extremities of baby. At the home level, baby should be clothed with linen pre-warmed on a "tawa". The room can be warmed by using an

"angeethi" taking care to safeguard against carbon-monoxide poisoning. Oil massage is culturally acceptable and provides insulation against heat loss and insensible water loss.

At the primary health centre, room heater and over-head lamps/electrical bulbs can be effectively used to keep the babies warm. There is a need to fabricate simple incubators which can be warmed by either by solar energy or hot water. In the health posts low reading thermometers should be made available to monitor the temperature of babies.

During transport of high-risk or sick babies, there is considerable risk of hypothermia. It is preferable to transport the baby in-utero because mother is the best transport incubator thermostatically maintained at 37°C. When transport of a baby is desired, he should be effectively clothed and insulated either with a silver foil or cotton padding. He can be transported by keeping him next to the skin of mother/attendant or placing him in a thermocol box or cane-basket. The box or basket can be kept warm by keeping hot-water bottles in hampers affixed on all the sides, while taking due precautions that no part of the baby should come in direct contact with the hot water bottles.

#### Prevention of bacterial infections

The technology for prevention of tetanus neonatorum is readily available and only needs implementation. The concept of thorough hand washing and use of clean, washed and sundried linen must be popularised and promoted to prevent bacterial infections. The cultural practice of keeping the mother-baby dyad isolated for 40 days needs to be promoted.

#### Promotion of breast feeding

The health workers and mothers should be educated regarding the

importance of colostrum in feeding newborn babies. All babies should be put straight to the breast, as soon as the mother has recovered from fatigue of labor, without any institution of prelacteal feeds. During lactation, the mother should be advised to drink extra liquid and take additional 50 per cent calories in order to maintain her own health. The basic physiology of lactation and adverse effects of anxiety, fear and pain on milk output should be explained. The concept of exclusive breast feeding (even water should not be given) during first 4 months of life should be popularised. The management of retracted/cracked nipples and engorged breasts with the help of manual expression of milk and use of nipple shield should be taught.

#### Home care of low-birth-weight babies

Most babies with a birth-weight of more than 1800 gm or gestational maturity of more than 34 weeks can be managed at home. Those infants who are too weak to suck, should be given expressed breast milk with a spoon or a dropper and this simple feeding technology needs to be evaluated and practised. These babies are at a greater risk to develop hypothermia and they should be adequately protected against this hazard by the indigenous methods outlined above.

#### Identification and referral of high-risk babies

The health workers should be given instructions to identify sick babies without delay so that they are referred to the health post providing level II neonatal care. The common indications for referral are mentioned in Table III.

Table III. Identification of a high risk and sick baby

1. Birth weight of 1800 g or gestation of <34 weeks
2. Inability to such or swallow

3. Reduced activity or excessive inconsolable crying
4. Marked changes in colour: pale, blue, yellow
5. Cold or febrile baby
6. Rapid breathing (respiratory rate > 60 per minute, ala nasi moving, chest retractions).
7. Superficial infections (purulent conjunctivitis, thrush, umbilical sepsis, pyoderma, abscess).
8. Persistent vomiting or watery diarrhoea
9. Abdominal distention
10. Bleeding from any part
11. Seizures
12. Delayed passage of meconium/urine

It is important to demonstrate these signs to the health workers on the sick babies so that their clinical judgement can be sharpened. The availability of icterometer in the primary health centre is useful to assess the severity of jaundice.

#### Research issues pertaining to innovative and appropriate technology in the field

It is important that neonatologists working at the tertiary care centres should accept the challenge and responsibility to adapt available technology for use in the community. They must undertake research to provide answers to a large number of crucial issues. Some of the important questions and issues which need to be probed on a priority basis are:

1. The utility of bag and mask *versus* mouth and mask resuscitation in the community.
2. Do actively crying babies at birth need any suction?
3. Can babies be effectively resuscitated without use of oxygen at birth? (21% oxygen *versus* 100% oxygen).
4. To identify simple criteria for assessment of the condition of the baby at birth by the traditional birth attendants.
5. Utility of tricoloured measuring tapes for identification of

- low-birth-weight babies *versus* spring balance in the hands of traditional birth attendants.
6. Spoon *versus* bottle feeding in babies who cannot suck from breast.
7. Spoon *versus* lavage feeding in low-birth-weight babies.
8. Identification of babies who can be safely fed at home with a spoon.
9. Do all premature babies need oxygen?
10. Can administration of honey prevent hypoglycemia in high risk neonates?
11. Do breast fed babies need extra water in summer?
12. To identify 3 to 4 simple and most crucial criteria for identification of high-risk pregnancy.
13. To evolve simple criteria and guidelines to identify sick babies in the community.
14. Evaluation of culturally popular galactogogues?
15. Operational research for evaluation of modules and programmes to enhance birth-weight of babies.
16. Scientific evaluation of prevalent cultural practices for care of newborn babies in different regions of the country to classify them into 3 groups: useful which needs to be popularized, harmless which may be ignored, harmful which must be stopped.
17. To evaluate indigenously available bags and masks for their efficacy.
18. To evaluate use of sunlight *versus* photo-therapy for treatment of jaundice in the community.
19. To design simple pictorial mother and child linked cards.
20. The role and utility of computer technology for delivery of health services in the community.

# INDIAN MEDICAL SYSTEMS

## —A New Fillip

ALL ancient civilizations of the world had their own systems of medicine—Egypt, Babylon, India, China etc. Though, in modern times, the Western system has established itself with its multifarious growth, there is also a growing awareness about the distinctive efficacy of the ancient systems of medicine all over the world. Ever since independence, India started making planned efforts through the Five Year Plans to develop the Indian systems of medicine.

The Indian Systems of Medicine consists of Ayurveda, Unani Tibb, Siddha, Yoga and Naturopathy. Ayurveda, based on the Vedas and developed more than 3,000 years ago, is perhaps the earliest medical science that laid stress on positive health, blending physical, mental, social, moral and spiritual welfare. Unani Medicine originated from Greece, enriched and developed by the Arabs and Persians, was introduced into India about 1,000 years back. The Siddha System, also called the Agasthya System, is confined mainly to the Tamil speaking areas of South India. Homoeopathy was introduced to India in the middle of the 19th century.

The above Systems in spite of their attaining glory and eminence, had received set backs from time to time. The modern medicine with the advent of British rule in the 18th Century, gradually eroded the growth of the Indian Systems of Medicine.

*National Health Policy:* The National Health Policy lays emphasis on the development of Indian Systems of Medicine and Homoeopathy and adequate utilisation of the large stock of health manpower including private practitioners available in these systems of medicine. It stresses the need to initiate organised measures to enable each of the various systems of medicine and health care to develop in accordance with its genius. It also emphasises that planned efforts should be made to dovetail the functioning of the practitioners of these various systems and integrate their services at the appropriate level in the overall Health Care delivery system. The Policy further emphasises that steps should be taken to move towards meaningful phased integration of the indigenous and the modern systems.

There are at present about 4.5 lakh registered practitioners of Ayurveda, Unani, Siddha and Homoeopathy scattered all over the country, particularly, in villages and remote areas. Of these, 2.7 lakh are of Ayurveda, 1.4 lakhs of Homoeopathy and the rest of Unani and Siddha. The total number of dispensaries, hospitals and training institutes are 22,749 approximately. Of these, 13,956 are of Ayurveda, 7,363 of Homoeopathy and the rest are of Unani and Siddha.

*Central Councils:* To regulate standards of education and practice by qualified persons, two councils, namely Central Council of Indian Medicine (C.C.I.M.) and Central Council of Homoeopathy (C.C.H.) have been set up under Acts of Parliament, at Delhi.

There are 117 Colleges of Ayurveda, 20 Colleges of Unani, 96 Colleges of Homoeopathy and three Colleges of Siddha imparting graduate and post-graduate level education in these systems. Apart from these, there are four separate Councils for Research in Indian Systems of Medicine and Homoeopathy. Two National Institutes of Ayurveda and Homoeopathy have been set up at Jaipur and Calcutta to act as centres of excellence in the fields of education, training, research and medical care in their respective fields. Societies have been registered for setting up similar National Institutes for Naturopathy at Pune and Unani Medicine at Bangalore.

*Quality Control:* In order to bring about quality control of drugs, two pharmacopoeial laboratories have been established in Ghaziabad to determine standards for drugs of Homoeopathy and Indian Systems of Medicine. The Central Government is providing an assistance of Rs. 1.6 lakhs for purchase of books and laboratory equipments to colleges of Indian System of Medicine and Homoeopathy being run by voluntary Organisations and also colleges taken over by the State Governments. So far such assistance has been provided to 83 colleges.

A Public Sector Undertaking, Indian Medicine Pharmaceutical Corporation Limited, was set up in 1978 by the Central Government in collaboration with the Government of Uttar Pradesh to manufacture quality Ayurvedic and Unani drugs. This company had a turnover of more than one crore rupees during the year 1988-89.

The Working Group set up by the Planning Commission for the Eighth Five Year Plan has stressed for special efforts to give a fillip to the various programmes particularly in the field of standardisation of education, quality control of drugs of Indian systems of medicine and improvement in health care services. The Group has suggested time-bound research programmes on indentified diseases, cultivation, conservation and regeneration of medicinal plants used in these systems and also for proper organisation and mechanism to plan, implement and develop these systems.

P. I. B.

# DISABILITY IS NOT THE END

SANJAY BHATNAGAR

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**It is for the disabled persons to strive for themselves. They must come out of the self imposed barrier. All disabled persons across the world should come together and pool their resources—mental, financial, physical and even spiritual to set up a show of sustained might that will sweep across the world pringing down attitudinal revolution, says the author, the first wheel-chair bound person to get through the civil services examination and is at present a class I officer with the Government of India.**

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**D**ISABILITY has always been an integral part of human experience. One has to come to terms with it. It can be in many ways—as a sufferer or as a family member or a friend or just an acquaintance of a disabled person.

The problems engendered by disability still remain the same all over the world. But what has changed—apart from the scientific and technological innovations to cope with the problems imposed by disability—is the attitude of the society towards disability. The pace of change was much faster in the developed countries many of whom had made revolutionary strides in the welfare and rehabilitation of the disabled. Though much more needs to be done, things have started looking up in the developing world too.

The problems which a disabled person faces, has to be viewed from the physical, psychological, sociological and economic planes. This virtually becomes a vicious circle which holds the handicapped person

and his family in its thrall. The handicapped person is often beset with psychological problems owing to a feeling of inadequacy or helplessness as compared to other able-bodied persons. These psychological problems virtually make him a misfit for society which leads to his alienation from the society and consequently economic deprivation.

## **Coping with Disability**

The normal reaction of the parents on being confronted with the fact of their child's disability is one of dismay and fear. This is largely because they are not sure if the child would be able to fend for himself. He could prove to be a liability both to himself and to the family. The negative feelings—particularly in third world countries in Asia and Africa—are reinforced by primitive beliefs and myths that disability is the result of sins committed during a past existence. Moreover, with the great pressure on means of livelihood, the chances of a disabled child getting gainful employment are very dim. This, therefore, leads to neglect of the child as compared to his sib-

ings, who are perceived to have better potential as wage earners.

This may lead to his becoming an even greater liability for his family as well as for himself. On the other hand, excessive pampering may render the child very weak and defenceless. Again, the child does not know how to deal with the rigours of existence and is completely at a loss as to how he should come to terms with his disability.

The ideal course for the parents would be to treat the disabled child at par with other children. Of course provision has to be made for the special physical problems. But apart from those, there should be no neglect or pampering. The child should be given equal opportunities to learn and to earn the parents love and affection. Education even vocational—is a must for the disabled child, rather much more than it is for the able-bodied. This training or learning is essential for the child to make use of his capabilities and to work hard to achieve a status in life.

A healthy no-nonsense attitude towards the child's disability is absolutely necessary for the parents as well as for the child for both of them have to tackle disability and come to terms with it if the child has to lead a dignified and meaningful existence.

### The process

Most of the disabled children have their first contact with their peer group when they join school. It is here that the child really learns to confront the problems of life. For the first time he comes to know that it takes all kinds to make this world. Normally, at the school level, a disabled child is singled out "for special attention". Sometimes it even takes the form of physical aggression. It is not that young children are senseless brutes but it is only that their curiosity and play might take a turn which is not exactly such as can be managed by the disabled child.

As the child grows up, the acutely feels the difference between him and his peer group and experiences a sense of segregation because the concerns of his mates are expanding and changing as they look towards the horizon of adulthood. This feeling of inadequacy may never arise if the handicapped child has from the very beginning been encouraged to develop his talents in craft, writing, painting, music, etc. Counselling is also required both for the disabled and the able-bodied children to learn to live with each other.

So the role of the parents is integral in ensuring a proper attitude towards life and disability on the part of a handicapped child. He has to be taught the hard facts of life and a feeling has to be instilled in him that he is no different from any other child and will, therefore, have to work hard—perhaps even harder.

Parents should encourage other family members to interact freely with each other. On no account should the disabled child be segregated either from his family or kin or even his peer group. He might sustain some minor injuries or bruises in the process. But these, in the long run, will save him from psychological bruises when he steps out in to the wide world beyond. If possible—and it is now possible in almost all cases—such children should be sent to school.

If the disabled persons have to lead a dignified existence, it is imperative for them to be economically self-dependent. There are many schemes being run by Nationalised Banks and financial institutions in order to finance self-employment ventures of disabled persons. But this assistance will not come unsolicited. Obviously, one has to seek such an information. The occupation has often proved the best form of therapy with which one can not only drive away ones blues but also put disability on the back burner and let the pleasures and joys of life come up and take first place which is their rightful due.

### Show the world

Disability is definitely not the end. It may, in fact, mark a new beginning in the sense that one has got to make allowances for disability, reorder priorities and restructure the life in such a manner that he can overcome the disability and lead a fairly normal life.

But, basically, it is for the disabled persons to strive for themselves. They must come out of the self-imposed barriers. All disabled persons across the world should come together and pool their resources—mental, financial, physical and even spiritual to set up a show of sustained might that will sweep across the world bringing down attitudinal barriers and setting up an attitudinal revolution.

In recent human history, there have been umpteen instances of handicapped persons who made it good in life and are remembered for their excellence in their fields of endeavour rather than as handicapped persons. In the Indian context, Surdas, Satish Gujral, Major HPS Ahluwalia, Ravinder Jain and Sudha Chandran can be called as the pioneers in this revolution which is slowly but surely taking shape. As more and more handicapped persons break free of the shackles of their disability, they are bound to become a concerted force of public opinion forcing societies to reconsider their age old misconceptions about disability and the handicapped.

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### FRAGMENTED IODINE

A fragmented radioactive iodine has been obtained on the reactor of the Institute of Physical Energy. The Soviet scientists believe that it can replace the 131st iodine isotope, which is used in the therapeutic treatment of patients after the removal of a tumour from the thyroid gland. Fragmented iodine sharply

intensifies the therapeutic effect on the original site of disease, as its half life is almost one-ninth that of iodine-131. This makes it possible to reduce doses. Furthermore, the substitute is easier to produce and costs less.

—Soviet Features

## CHOICES FOR A NEW CENTURY

**World population, now 5.3 billion will increase by another billion people during the 1990s. The next ten years will decide the shape of the 21st century. They may decide the future of the earth as a habitation for humans. At the start of the 1990s the choice must be to act decisively to slow population growth, attack poverty and protect the environment. The alternative is to hand on to our children a poisoned inheritance, says the State of World Population Report 1990.**

**W**ORLD population, now 5.3 billion, will increase by another billion (one thousand million) people during the 1990s. During the next century it will probably double and could triple, says this year's State of World Population Report from the United Nations Population Fund (UNFPA). The biggest increase will be in the poorest countries; consequences for the environment and for development prospects will be serious. They could be catastrophic.

"The next ten years will decide the shape of the 21st century. They may decide the future of the earth as a habitation for humans," said Dr Nafis Sadik, UNFPA Executive Director.

The 1990s will see greater increases in human numbers than any decade in history, according to the Report. World population is increasing by three people every second—about a quarter of a million each day. Between 90 and 100 million people—roughly equivalent to the current population of eastern Europe or central America—will be added every year during the 1990s

World population growth continues to be grossly out of balance, with more than 90 per cent of the growth coming in the developing regions. By and large, the biggest increases will be in the poorest countries—those by definition least equipped to meet the needs of the new arrivals and invest in the future.

Just a few years ago, in 1984, it seemed as if the rate of population growth was slowing everywhere except Africa and parts of South Asia. The world's population seemed set to stabilize around 10.2 billion towards the end of the next century, the Report continues.

Today, the situation looks less promising. Progress in reducing birth rates has been slower than expected. According to the latest United Nations projections, the world has overshot the marker points of the 1984 'most likely' medium projection, and is now on course for an eventual total that will be closer to 11 billion than 10 billion.

In fifteen countries—thirteen of them in Africa—birth rates actually rose between 1960-65 and 1980-85. In another 23 the birth rate fell by less than two per cent.

If fertility reductions continue to be slower than projected, the mark could be missed yet again. In that case the world could be headed towards an eventual total of up to 14 billion people.

### Poverty

"Of the present 5.3 billion people on earth, about a billion live in poverty. Can the earth meet even modest aspirations for this 'bottom billion', let alone those of the betteroff and their descendents without irreparable damage to its life-support systems?" asks the Report.

"Already our impact has been sufficient to degrade the soils of millions of hectares, to threaten the rain forests and the thousands of species they harbour, to thin the ozone layer, and to initiate a global warming whose full consequences cannot yet be calculated.

"By far the largest share of resources used and waste created is currently the responsibility of the 'top billion' people, those in industrialized countries. These are the countries overwhelmingly responsible for damage to the ozone layer and acidification, as well as for roughly two-thirds of global warming", the Report states.

### Damage to environment

"However, in developing countries the combination of poverty and population growth among the 'bottom billion' is damaging the environment, notably through deforestation and land degradation. Deforestation is a prime source of carbon dioxide, one of the principal 'greenhouse gases' responsible for global warming. Rice paddies and domestic cattle—food suppliers for two billion people in developing countries—are also major producers of methane, another of the greenhouse gases."

The Report says that developing countries are also doing their best to increase their share of industrial production and consumption. Their share of industrial pollution is rising, and will continue to rise.

Developed or developing, the more people the more pollution: at any level of development larger numbers consume more resources and produce more waste.

The Report states that redressing the balance demands action in three major areas:

### Three major areas

\* **firstly**, a shift to cleaner technologies, energy efficiency and resource conservation by all countries, but especially the richer quarter of the world's population;

\* **secondly**, a direct and all-out attack on poverty itself;

\* **thirdly**, it demands reductions in overall rates of population growth; "reducing population growth, especially in the countries with the highest rates of growth, will be a crucial part of any strategy of sustainable development," the Report says.

### Human resource development

"The quality of human life is inseparable from the quality of the environment. It is increasingly clear that both are inseparable from the question of human numbers and concentrations. One of the clearest lessons of the last two decades of work in population is that investments in human resource development—for example, improvements in women's status, access to education health and the means of family planning—not only improve the quality of life, but are also the

best and quickest way to reduce population growth rates. By opening up options in the present, they open up options for the future."

The Report argues that investment in human resources provides a firm base for rapid economic development, could have a significant impact on the environment crisis and is essential for global security,

However, in the past it has often commanded a lower priority than industry, agriculture, or military expenditure.

"It is time for a new scale of priorities: there is no other sphere of development where investment can make such a large contribution to the options and quality of life, both in the present and in the future.

"At the start of the 1990's" the Report says "the choice must be to act decisively to slow population growth, attack poverty and protect the environment. The alternative is to hand on to our children a poisoned inheritance." △

—UN Newsletter, 4 Aug, 1990.

## HERBAL CURE HOPES FOR ARTHRITIS

Joint research being carried out at Sunderland Polytechnic in north-east England and India's University of Poona is seeking to establish whether traditional Indian medicines could provide a herbal cure for arthritis.

The project involves the use of ayurvedic medicines, which have been used for thousands of years in India but are still largely unknown in the West. Ayurvedic medicine, using herbs, is still widely used as an alternative to modern techniques particularly among poorer people.

Professor Malcolm Hooper, who heads the Polytechnic team, believes the Western world has a lot to learn from ayurvedic medicine. He explained: "For Such ailments as arthritis, Ayurvedic medicine is one possible remedy. Although herbs have been used in India for a long time, there has been no way of monitoring just how effective they can be. We want to examine them more closely with the ultimate aim of providing a relatively cheap and accessible form of treatment." The research has the backing of medical consultants in Britain, and clinical trials are planned for India.

—B. I. S.

# BOOK REVIEW

## PREVENTION OF SEXUAL TRANSMISSION OF HIV

**Prevention of Sexual Transmission of Human Immunodeficiency Virus, WHO AIDS Series, No. 6, 1990, iii+27 pages SW. fr. 8.**

This book presents precise, authoritative advice on measures that can be taken to prevent transmission of the human immunodeficiency virus through sexual intercourse. The book opens with a brief overview of what is known about the modes of HIV transmission, followed by a detailed explanation of factors influencing the risk of acquiring HIV infection through sexual intercourse. Factors considered include conditions influencing the probability that the sexual partner is infected, the type of sexual contact involved, the amount of virus present in the blood or secretions of the infected partner, and the presence of other sexually transmitted diseases. The second section presents guidelines for prevention through the use of education, the promotion and supply of condoms and spermicides, the use of HIV antibody testing in association with pretest and post-test counselling, and partner notification, including a list of six points that should form the basis of partner referral guidelines. Specific recommendations are then given for actions to be taken by public health authorities, health care providers, HIV-infected persons and their partners, and the general public.

The second half of the book records consensus statements, formulated during recent WHO consultations concerning the role of sexually transmitted diseases as a risk factor for HIV transmission and the role of partner notification activities within the context of national AIDS prevention and control programmes. Points to consider prior to establishing an HIV partner notification programme are clearly indicated.

### An Announcement

## GLOBAL CONSULTATION ON WATER AND SANITATION FOR THE 1990s IN INDIA

A Global Consultation of Safe Water and Sanitation will take place from 10-14 September, 1990 in New Delhi. It will be hosted by the Government of India, sponsored by UNDP and cosponsored by the UN Steering Committee for cooperative action for the International Drinking Water Supply and Sanitation Decade (IDWSSD)—1981-1990, together with the External Support Agencies (ESAs) Collaborative Council.

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It will provide an opportunity for consultations among the developing countries with the ESAs to formulate strategies for environmentally sound and sustainable water supply and sanitation services for the 1990s and beyond.

The consultation will build on the accomplishments of the IDWSSD 1981-1990 and mark the beginning of a new phase of accelerated development for the many hundreds of millions of unserved low-income people. The consultation is expected to reach consensus on strategies which could be supported by the international community.

UNDP Resident Representatives have invited the governments to select a representative at the State secretary or under-secretary level from the supply/sanitation, environment, planning and/or finance sectors to attend the Global Consultation. In view of the important contribution made by the non-government organizations (NGOs) during the decade, governments are urged to include a representative of a country-based NGO in their delegation.

IDWSSD is drawing to its close at the end of 1990. The Decade had its origin in the resolution from the United Nations Conference on Water in 1977 and the General Assembly in 1980. The concerted international efforts have led to the provision of safe water supply to an estimated 700 million new users during the Decade. Sanitation facilities during the same period were provided to some 250 million people.

The Decade has also yielded unique and positive experiences as well as helped systematize and solidify strategies, approaches and support structures at country, regional and international levels. Yet with the continuous rapid global population increase, the ensuing risks for worsening of the health conditions and deterioration of the environment, there is a pressing need to accelerate the inputs worldwide during the 1990s.

It is with this background of international efforts, the Global Consultation on safe water and sanitation for the 1990s has been organised. △

# EXPECTATION OF LIFE AT BIRTH (IN YEARS) 1947-90

