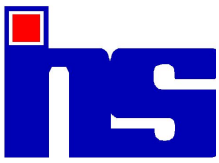
# Health Sector Status in Andhara Pradesh:sustainabitity of programs and projects .

**Prasanth mahapatra & Raman**

**Working Paper - WP 8/1994(1-32)**



THE INSTITUTE OF HEALTH SYSTEMS

# Health Sector Status in Andhra Pradesh: sustainability of programs and projects[1]

Dr. Prasanta Mahapatra[2], Dr. G.N.V. Ramana[3]

## Introduction:

Sustainability could be defined as ability of a project /programme to maintain flow of acceptable level of benefits throughout its economic life[4]. In health sector, just like any other sectors, the performance need to be assessed both quantitatively as well as qualitatively. Institution building and human resource development are known to be the key factors in ensuring sustainability while lack of flexibility and scope for innovation constitute two important constraints that plague the sustainability of public sector programmes. Parallel role played by the private sector need special emphasis in this context. The NSSO 42nd round on health care utilisation suggests that in the State of Andhra Pradesh 55% of the hospitalised and 71% of the out patients preferred private sector. Significant role is being played by NGOs - popularly known as the third force - in health care is evident. To achieve health for all by 2000 A.D. and to sustain the gains it is, therefore, necessary to bring all the three forces together.

Though health is a State subject, Centre has considerable influence. A majority of the National Health Programmes are sponsored by the Government of India with an understanding that the respective State Governments will take over these programmes after a certain period of time. The sustainability of these programmes, therefore, depends on Government of India's continued financial commitment to the programme as well as fitment of the programme in the priorities of the respective State Governments. It is often noticed that the State Governments are ill prepared to take up these programmes when the Central sponsorship ends. At the same time they are not in a position to refuse the centre's offer as their state is certainly benefited by the programme. In this scenario, it is not surprising to notice that many programmes cannot sustain when once the Central aid is with drawn. Also, it is necessary to consider epidemiological managerial and socio-economic aspects involved in a particular programme strategy as they have significant contribution towards the sustainability. The success stories described in this paper highlight some of these aspects.

## Area and People:

Andhra Pradesh, located in the coastal south India extending on to the deccan plateau, is the fifth largest state in India with a population of 66.3 million. The state has 23 districts spread over three distinct geographical regions which include coastal Andhra with large coastal plains and fertile deltas, Rayalaseema which is drought prone and interior dry Telangana region. While the coastal plains constitute the most developed part of the state, Telangana region is more backward in terms of social development. Lack of rains and chronic hunger is a common feature of Rayalaseema.

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[1] This paper was prepared for National Workshop on " The Sustainability of Health Programmes in India" with support of HCM Rajasthan Institute of Public Administration, the EDI, World Bank and the Department of Personnel & Training, Govt. of India

[2] Dr. Prasanta Mahapatra, IAS, IHPP-Takemi (Harvard) Fellow, Joint Secretary to Government of AP, Health, Medical and Family Welfare Department, Government of AP Secretariat H-Block #318, Hyderabad, AP 500 022

[3] Dr.G.N.V. Ramana, Director, The Institute of Health Systems, DMS Complex, Sultanbazar, Hyderabad, AP 500 195. INDIA

[4] Operations Evaluation Department. The World Bank (1986).

Major river systems of the state include Krishna and Godavari. originating from the western ghats, these rivers flow eastwards irrigating vast tracts of land before emptying into the Bay of Bengal. Agriculture is the main stay of state's economy and in fact Andhra Pradesh is often called as "granary of South" as it usually has surplus grain production.

A large majority of the state's population (73%) reside in rural areas consisting of about 29,400 villages. About 27% of the state's population reside in 250 urban towns and cities, a trend more or less common to the rest of the country. About 80% of the urban population is residing in 66 towns having population more than 50,000 and the three corporations of Hyderabad, Vijayawada and Visakhapatnam

About 15.9% of the population belong to scheduled castes while scheduled tribes constitute 6.3%. The concentration of scheduled caste population was highest in Nellore (21.9%) closely followed by Prakasham (20.0%) while scheduled tribe population was more in districts of Adilabad (17.0%), Visakhapatnam (14.3%) and Warangal (13.7%).

According to 1991 census, the estimated percentage of literates among population aged seven years and above was 45.11% (Males:56.2%; Females:33.7%) compared to the national average of 52.1%. The growth in the literacy rates between 1981-91 was to the extent of 9.45%. Though nearly 2/3rds of females above 7 years were illiterates in Andhra Pradesh, it is interesting to note that the percent growth in literacy during the past decade was more or less similar in both sexes (Males:9.4%; Females:9.55%). From a strong agricultural base, the state economy has, over the years, diversified into industry and science. The National Sample Survey Organisation's estimates of poverty during 1977-78 (32nd round) and 1983-84 (38th round) indicate that rural poverty in the state has declined from 45.45% to 38.67%. The corresponding decline in the urban poverty during the same period was from 37.02% to 29.4%.

## Current Health Situation & Demographic Profile:

### HEALTH STATUS INDICATORS:

WHO[4] (1981) has recommended five basic health status indicators. These are:

1. Indicators of nutritional status and psychosocial development of children,
2. Infant mortality rate (IMR),
3. Child mortality rate (1-4 years),
4. Life expectancy at birth or other specific ages,,
5. Maternal mortality rate.

Table-1 Life Expectancy at Birth of Andhra Pradesh, India and Kerala

| Period | AP | Kerala | India |
|---|---|---|---|
| 1951-61 | 36.9 | 48.3 | 41.2 |
| 1961-71 | 44.4 | 48.8 | 47.7 |
| 1971-81 | 55.7 | 65 | 54.4 |
| % Increase | 50.9 | 37.7 | 32 |

Among these, life expectancy at birth is the most comprehensive as it incorporates in it the death rate, infant mortality rate etc. Though expectation of life at birth was low in the state during 50s, by 70s it was slightly better than the national average, suggesting a significant improvement in the health status of people. The percent increase in expectation of life between 50s and 70s in Andhra Pradesh was to an extent of 50% compared to a national average of 32%. In case of Kerala, which had best health situation in the country, the percent increase in expectation of life between 50s and 70s is to the extent of 38% only. This could be due to the fact that Kerala started with a higher life expectancy at birth during the fifties.

[4] WHO; Development of Indicators for Monitoring Progress Towards Health for All by the year 2000, Geneva, 1981.

The Infant Mortality Rate (IMR), considered to be a sensitive indicator of socio-economic status and health care, was lower in Andhra Pradesh compared to national averages . The IMR of the state registered a consistent decline from 113 in 1971-75 to 78 in 1990. The corresponding national figures during the same period were 129 and 80 respectively. The reduction of IMR has either been keeping pace with the national trend or has been more than that. According to a recent study[5] the period average of IMR during 1988-92 is estimated to be 70 per 1000 live births. If this is taken into account the reduction of IMR in the state would be much better than the national average. However performance of the state has been much less than that of Kerala, even though the later started with a lower IMR in the base year. Thus, though AP has performed well in reducing IMR, it has definitely not been able to exploit the full potential available to it.

Table- 2 Infant Mortality Rates in AP, Kerala and India (Source: SRS)

| Period | AP | Kerala | India |
|---|---|---|---|
| 1971-75 | 113 | 57 | 134 |
| 1976-80 | 112 | 46 | 124 |
| 1981-83 | 81 | 34 | 107 |
| 1982-84 | 78 | 31 | 105 |
| 1983-85 | 79 | 31 | 102 |
| 1984-86 | 81 | 29 | 99 |
| 1985-87 | 81 | 29 | 96 |
| 1986-88 | 81 | 28 | 94 |
| 1987-89 | 81 | 26 | 93 |
| 1988-90(Est) | 78 | 22 | 89 |
| % Redn | -39% | -61% | -38% |

Diet and nutrition surveys undertaken, on representative sections of the community, by the National Nutrition Monitoring Bureau (NNMB) suggest that the diet in Andhra Pradesh mainly consists of cereals and Millets which contribute more than three fourths of calories and proteins. Consumption of protective foods such as green leafy vegetables, fruit, milk etc., was generally low. Among the nutrients, Vitamin A and Riboflavin were observed to be most deficient as only 37.9% and 60% of their daily requirements are being met from the diets.

The weight for age status of the pre-school children, considered to be the most sensitive indicator of community nutrition status, suggests that only 13.2 % of them could be considered 'normals'. About 42.3% of them were suffering from mild and 44.5% from moderate to severe forms of malnutrition. District wise analysis suggest that, Ranga Reddy and Kurnool districts had highest prevalence of malnutrition while 8 districts Viz. Srikakulam, Visakhapatnam, Cuddapah, Anantapur, Adilabad, Medak, Warangal and Khammam have under nutrition levels higher than the state average. About 70%of pregnant women in Andhra Pradesh are anaemic while 25% have other nutritional deficiencies.

Unfortunately, the vital registration system in the State is grossly inadequate both in coverage as well as content. Continuous survey of causes of death in rural A.P suggest that about 1% of the total deaths are maternal deaths related to pregnancy, child birth and puerperium. Thus, higher mortality among women in the age group of 15-45 yrs, compared to males could be attributed to pregnancy and child birth.

**RURAL URBAN DIFFERENCE:**

As can be seen from the Table-3 , decline of crude birth rate as well as the IMR has been more in rural areas than urban areas. This could be due to conscious efforts to expand the primary health care network in rural areas. Though the rural urban gap has been narrowed, it still exists. On the other hand the stagnant lower mortality rates in the urban areas does not mean that the health status of every one in the urban area has remained so. It is being

[5] National Family and Health Services Survey, AP, 1992; The Administrative Staff College of India, Hyderabad, 1993.

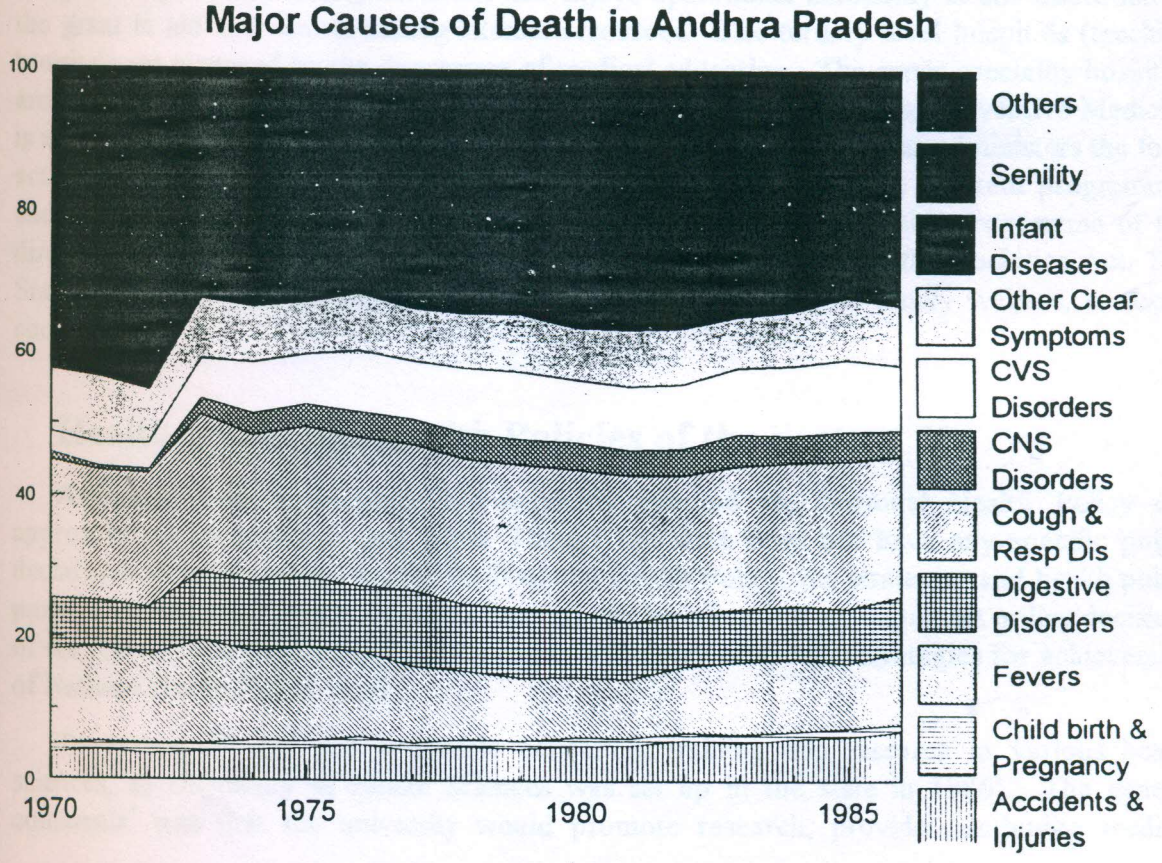
increasingly realised that this is due to rather deteriorating health status of the urban slum population offset by the lower mortality among the middle and upper class urbanites.

Table-3 Rural Urban Differentials in Mortality Trends in A.P and India

| Year | AP | | | | India | | | |
|---|---|---|---|---|---|---|---|---|
| | CDR-RL | CDR-UN | IMR-RL | IMR-UN | CDR-RL | CDR-UN | IMR-RL | IMR-UN |
| 1971 | 17 | 10.3 | 115 | 65 | 16.4 | 9.7 | 138 | 82 |
| 1981 | 11.7 | 6.7 | 90 | 58 | 13.7 | 7.8 | 110 | 62 |
| 1990 | 10.2 | 6.8 | 83 | 57 | 10.4 | 6.7 | 86 | 51 |

## DISEASE SPECIFIC MORTALITY & MORBIDITY:

Though some estimates of major diseases, included in the national health programmes, are available in the state, generally complete information on morbidity is lacking. According to available reports communicable diseases still constitute a major chunk of morbidity in the state. Data from the survey of causes of death under model registration scheme for the last two decades shows that the share of deaths due to causes peculiar to infancy has reduced over the years. This is corroborated by the fall in the IMR also. Surprisingly share of deaths due to child birth and pregnancy has remained at the same level. This would suggest that the maternal component of the mother and child health programs has not been very effective in reducing maternal mortality. Share of deaths due to respiratory, digestive disorders and fevers have remained constant. Either the communicable diseases affecting these systems have not reduced or the reduction has been compensated by deaths due to non communicable diseases affecting the digestive / respiratory system or manifesting in fever. Deaths due to accidents and injuries are increasing. This calls for streamlining safety systems and procedures and building up capacity for trauma care. The increase in share of deaths due to cardiovascular and central nervous systems are off course evidences of epidemiological transition.



## Present Status Of Health Care Services In Andhra Pradesh:

There is a considerable improvement in the public sector health care institutions in the state during the past three decades. Average population served by a health care institute offering general services decreased from 63,000 in 1956 to 39,216 in 1990. During the same period, total beds available at the public sector hospitals increased from 13,995 to 27,899. With the total number of doctor working in government sector around 6,321, the doctor population ratio has come down substantially from 1:30,000 to 1:10,497. An estimated 15,514 nurses and 17,120 paramedics are presently working in different institutions. At present, under the public sector, the state has 10,568 sub centres, 1306 primary health centres, 119 dispensaries, 17 District hospitals, 46 mobile medical units, 38 tertiary hospitals attached to 9 medical colleges and 2 super speciality hospitals. In addition, all the 23 districts in the state have district TB centres. There are about 25 TB clinics and 194 leprosy control units in the state. In addition to the above institutions, health care facilities are being provided by other public sector undertakings such as Railways, Mines, ESI, Police etc.

The state has, of late, witnessed a phenomenal growth of health care facilities in the private sector. These services range from a family vaidya in the village to multi speciality corporate hospitals in the cities. Though precise figures are not available, it is estimated that there are over 2100 private hospitals spread over the state accounting for about 42,000 beds. It is also estimated that there are more than 1000 practitioners of Indian System of Medicine (ISM).

The state has a rich combination of administrative arrangements to manage the publicly founded health care institutions. Primary health centres, sub centres and the disease control programmes are managed by the directorate of health. The family welfare programme are managed by a separate directorate, headed either by a public health professional or a professional civil servant. The first referral hospitals (secondary level hospitals) are managed by a statutory autonomous body (The AP Vaidya Vidhana Parishad), which receives the budgeted expenditure as a grant in aid and enjoys operational autonomy in sub allocation of the grant in aid and also in raising internal resources. The tertiary level hospitals (teaching hospitals are managed by the directorate of medical education. The super speciality hospitals are again autonomous and charge fees for their services. The Institute of Preventive Medicine is a separate directorate, which operates public health laboratory services, administers the food act and produces vaccines.. Even within the government directorates, different programmes and institutions are headed differently. For example, the school health programme of the directorate of health is being managed by a society, registered under the Societies Act. The State Institute of Health and Family Welfare of the directorate of family welfare, is also a society.

## Health Goals and Health Policies of the State:

Andhra Pradesh government has implicitly adopted the National Health Policy and approaches in various five year plans. Though the state does not have any specific policy declaration to supplement / specify the National Health Policy, the strategies and health policy pursued by the government of Andhra Pradesh can be inferred from important policy decisions of the State. These policy decisions are more in the way of specific strategies for achievement of National Health Policy Goals.

To ensure efficient and systematic education, training and research in various health sciences, an University of Health Sciences was set up in the state in 1986[6]. The general consensus[7] was that the university would promote research, provide continuing medical

education and establish uniform standards. It was also envisaged that the university would introduce multi disciplinary approach to study of health care problems by introducing courses in public health, social and behavioural sciences, environmental science and toxicology etc.

The first referral hospitals and district hospitals have got a specific supportive role in the primary health care delivery. These middle level hospitals were being administered by the directorate of health which also has the responsibility of implementing various public health programmes. However, the usual emphasis on public health programmes resulted in poor / marginal attention on middle level hospitals and medical services. Hence, the health care organisations in the state were restructured by separating medical services from public health programmes so as to give greater emphasis for intensive development of both, and to strengthen necessary linkages for comprehensive medical and health care. To achieve this objective, a statutory autonomous body, the Andhra Pradesh Vaidya Vidhana Parishad (APVVP) was set up in 1986[8].

The Nizams hospital was converted in to the autonomous Nizams Institute of Medical Sciences (NIMS). Higher capital investment was initially made with a condition that it would raise its operational expenses by charging fee for services. In respect of poor patients, who cannot afford to pay for such high tech services, the state reimburses the hospital bills on a case to case basis. In addition, the Tirupati Tirumala Devasthanams were encouraged to build a super speciality hospital at Tirupati, in the lines of NIMS.

Mobilisation of financial resources is critical factor for program sustainability. In this context the state has expressed its preference for a policy of cost recovery, from those who can afford, for medical care. This is evident from the APVVP Act. One of the objectives of setting up the autonomous body was to finance further improvement in quality of service in middle level hospitals, by recovering cost of service from well to do users. The NIMS is also another example. Though the NIMS has been able to recover a good part of it's costs , in case of APVVP this has not yet materialised.

## Health Expenditure:

The share of expenditure on health (including medical, public health, family welfare, water supply and sanitation) out of the total public expenditure in the state of AP has gradually increased from about 6% in 1980-81 to about 8% in 1988-89. Bhore committee[9] (1946) recommended that 15% of the total government expenditure should be spent on health and related services. The Mudaliar committee[10] did not go into the issue of total expenditure but commented that about 10% of plan expenditure should be allocated to health and related services. However, due to overriding needs of other important sectors, such as irrigation and

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6 Government of Andhra Pradesh, HM&FW department; The University of Health Sciences Act, Act no 6 of 1986.

7 Government of Andhra Pradesh, HM&FW department; Proceedings of the Colloquium on Dec. 26, 1985; Communicated in government of AP HM&FW department letter no 2816/E1/85 dated Jan. 21, 1986.

8 Government of Andhra Pradesh, HM&FW department; The Andhra Pradesh Vaidya Vidhana Parishad Act, 1986 AP Act no 29 of 1986.

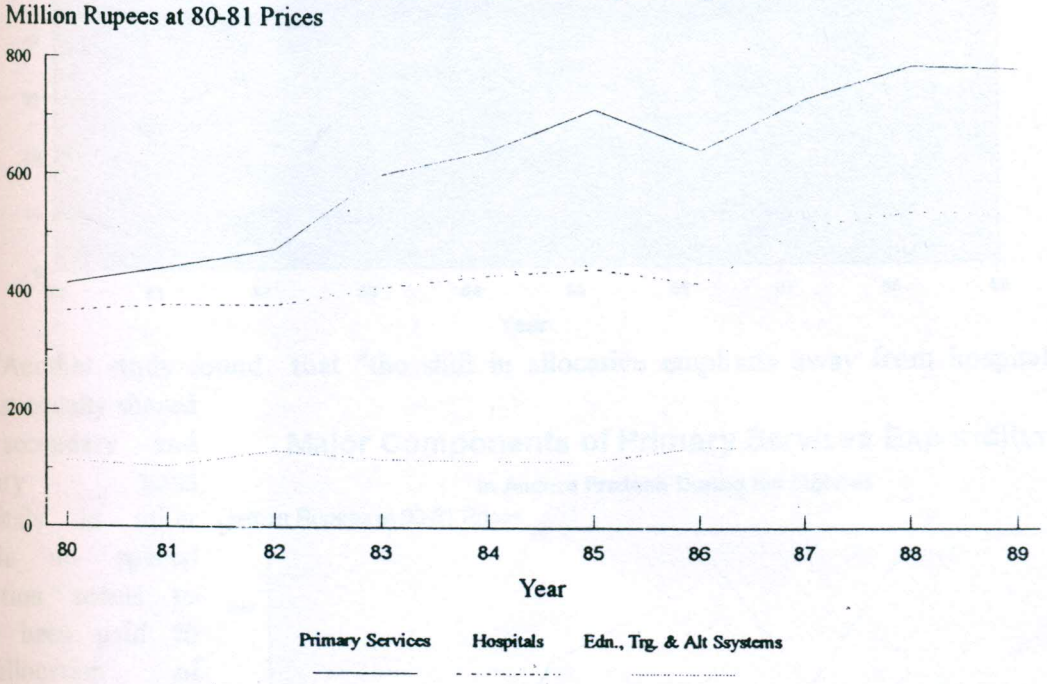
9 Government of India; Report of the Health Survey and Development Committee, 1946 Vol. II pp508-517.

10 Government of India; Report of the Health Survey and Planning Committee, 1962 pp 477-480.

power, the government of Andhra Pradesh could not allocate this proportion for health. In 1985-86 Andhra Pradesh was spending about Rs.39.08/- per head on health every year. Though the difference between AP and Kerala in this regard was only Rs.6.25/- per head, the health situation in Kerala was undoubtedly the best in the country. This could either be due to efficiency in use of health sector resources, economies of scope due to investments in other sectors like education or most probably a combination of both.

## Major Components of Health Services Expenditure

**In Andhra Pradesh during the Eighties**




Study of governmental health expenditure[11] revealed that expenditure in all the three sectors of health care (primary services, hospitals and others) increased in absolute terms. Government expenditure on primary health services viewed as a share of total government health services expenditure, by and large, increased during the eighties.

Primary level institutions, MCH and family welfare programmes and disease control programmes almost equally shared the primary services component of health services allocation. Allocation to alternate systems of medicine increased. The share of allocations for paramedical and health worker training reduced. There was a consistent and steady increase in combined allocations for primary services, alternate systems of medicine and paramedical training.

The increased share of allocation to these priority areas was accompanied by a consistent and steady decline in allocations to hospital services and medical education. The share of hospital services expenditure in Andhra Pradesh is lower than what has been from most developing country studies. Study of governments health department plan expenditure confirmed the emphasis on primary services."

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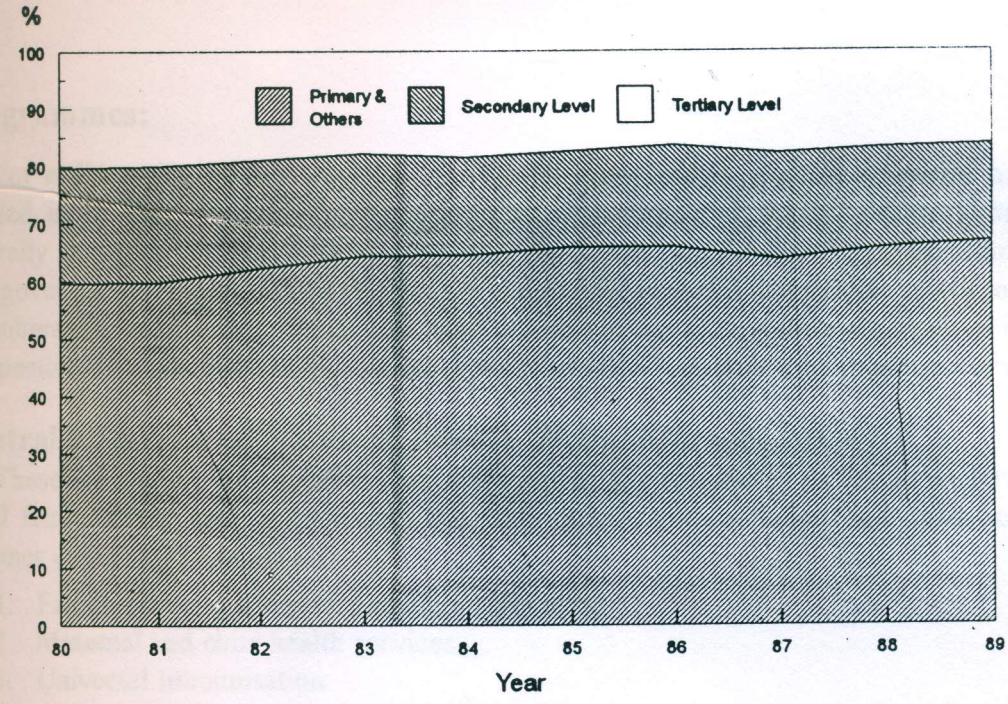
[11] Mahapatra Prasanta, Berman Peter; Allocation of Government Health Services Expenditure in Andhra Pradesh, India, during the eighties; Takemi Program in International Health working papers, 1992, Harvard School of Public Health, USA.

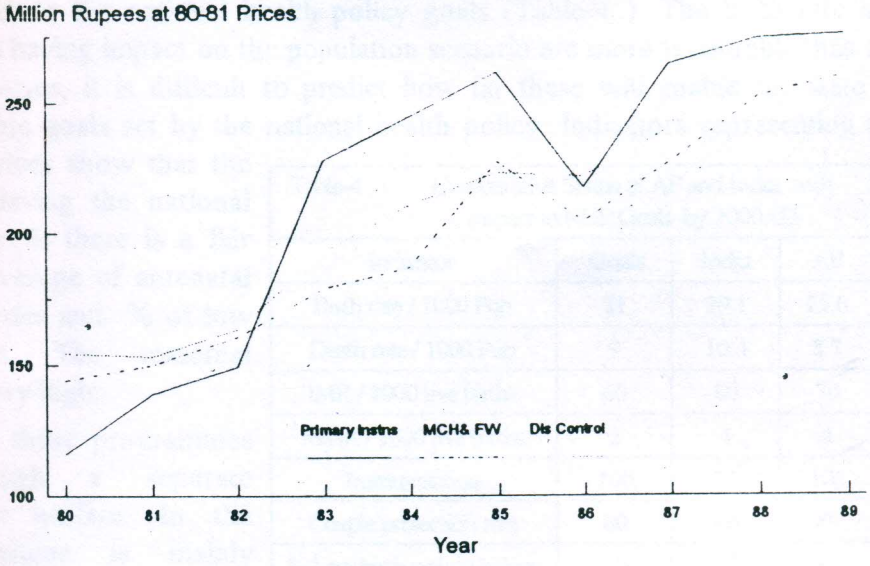
## Share of Health Sector Expenditure




[12]Another study found that "the shift in allocative emphasis away from hospitals was almost equally shared by secondary and tertiary level hospitals. In other words no special attention seems to have been paid to sub-allocation of resources within the hospital sector. The actual share of secondary and tertiary level hospitals during the eighties has been 51:49 against a suggested norm of around 66:33. Study of the government's health department plan expenditure on hospitals, revealed that between secondary and tertiary level institutions, the former was consistently allocated a lower share of plan resources. On the whole, two thirds of total plan resources devoted to hospitals were spent on tertiary level institutions. The opportunity that the plan schemes provided to rectify the initial disadvantage of secondary level hospitals was missed.

## Major Components of Primary Services Expenditure

### In Andhra Pradesh During the Eighties




[12] Mahapatra Prasanta, Berman Peter; Resource allocation for public hospitals in Andhra Pradesh, India. Has it been appropriate?; Takemi Program in International Health working papers, 1992, Harvard School of Public Health, USA.

## Programmes:

For a discussion on sustainability, the health programmes in the state could broadly be divided in to four groups which include centrally sponsored family welfare programmes, centrally sponsored disease control programs, state plan programmes and programmes of the non governmental organisations (NGOs). It is naturally assumed that private sector institutions are inherently sustainable, though this need not be correct from a long term macro economic perspective. For practical reasons of space we have not dealt upon the private sector in details.

## Centrally Sponsored National Family Welfare Programmes:

These are a group of related programmes, essentially committed to family welfare through small family norm, safe motherhood, and appropriate level of infant and child health. The schemes under this umbrella are:

1. Family planning and post partum programmes
2. Maternal and child health services
3. Universal Immunisation
4. Child survival and safe motherhood
5. Oral rehydration
6. Health manpower training

. The crude death rate, infant mortality rate and immunisation status of AP compare favourable with respect to the national health policy goals (Table-4 ). The birth rate and couple protection rates having impact on the population scenario are more favourable than the national average. However, it is difficult to predict how far these will enable the state to achieve the demographic goals set by the national health policy. Indicators representing the level of maternity services show that the state is far from achieving the national goal targets. For example there is a fair gap in case of the coverage of antenatal clinics, attended deliveries and % of low birth weight babies. The maternal mortality rate is also very high.

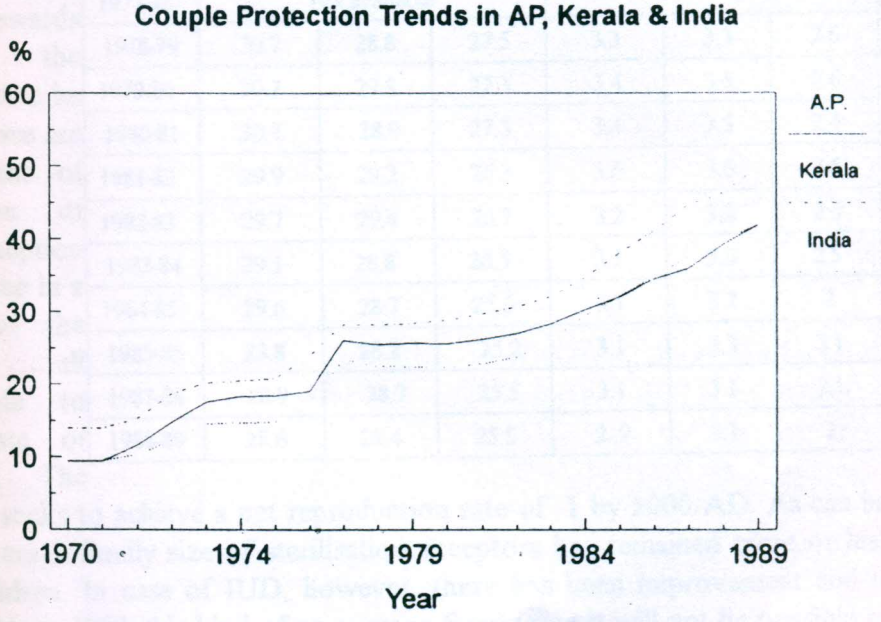
Table-4 Comparative Status of AP and India with respect to NHP Goals by 2000AD

| Indicator | Goals | India | AP |
|---|---|---|---|
| Birth rate / 1000 Pop | 21 | 29.1 | 25.6 |
| Death rate / 1000 Pop | 9 | 10.4 | 8.7 |
| IMR / 1000 live births | 60 | 80 | 70 |
| MMR / 1000 live births | 2 | 4 | 4 |
| Immunisation | 100 | 75 | 100 |
| Couple protection rate | 60 | 46 | 49 |
| % Low birth weight babies | 10 | 25 | 30 |
| Coverage of ANC . | 100 | 60 | 70 |
| Attended deliveries | 100 | 30 | 30 |

At the state level these programmes are managed through a separate directorate of family welfare. In the districts the programme is mainly implemented through the primary health care infrastructure. For this purpose the district medical and health officer is assisted by an additional medical and health officer and an immunisation officer. All field activities of programme are launched from the respective PHCs. Multipurpose health workers located in subcentres motivate eligible couples in their area for planned parenthood and provide MCH services. The clinical procedures required for the programme are done in the PHCs and hospitals with earmarked beds. In addition to the hospitals that provide post partum services, private sector hospitals and nursing homes are also supported under the programme based on their performance.

## FAMILY PLANNING PROGRAMME:

The National Family Planning Programme, started in 1951, has been promoting small family norm through voluntary contraception. This programme has been given utmost importance and has been included as a component of 20 point programme in view of its demographic implications. A target is set to reach a net reproduction rate (NRR) of one by the year 2000. The objectives of the programme include a birth rate of 21 and death rate of 9 per 1000 population and a couple protection rate of 60% by the year 2000. The demographic trend of a population could be influenced by medical technology as well as by the socio cultural processes of the respective societies. Thus the interventions for achievement of the demographic goals could be either medical technological and / or socio cultural.




The state has created massive infrastructure for medical technological interventions and is also spending correspondingly for provision of these services. Every year about 4.5 lakh sterilisations are performed in the State. The number of couples using various spacing measures has slightly increased over the years and is currently around 12 lakhs. As many as 83 post partum units (PPU) have been created in teaching hospitals, district hospitals and taluk hospitals to motivate mothers for small family norm.

**Decennial Growth Rates In Ap, Kerala And India[1]**

| Period | A.P. | Kerala | India |
|---|---|---|---|
| 1961-71 | 20.9 | 26.29 | 24.8 |
| 1971-81 | 23.1 | 19.24 | 24.66 |
| 1981-91 | 23.8 | 13.98 | 23.5 |

[1] Source: Census of India

With this infrastructure in place and the general emphasis on the medical technological interventions, achievement of the targets has been fairly impressive though not quite up to what has been officially aimed at. The couple protection rate has been constantly rising during the last two decades. The pattern of rise in couple protection rate as well as the absolute level of it has been by and large same for the AP, the whole country as well as Kerala which is considered to be a low population growth state. However, the outcome, as assessed by decennial growth rate, birth rate, etc. doesn't seem to reflect this achievement. The decennial growth rate of AP, which used to be lesser than national average, registered consistent increase and by 1981-91 the AP figures were marginally higher. The decline of death rate for AP and the whole country during the last two

decades has been slightly higher than that of Kerala. As a result the gap in death rate between Kerala and that for AP or the country has narrowed. One could argue that the increase in growth rates of AP and India, in contrast with that of Kerala was due to the steeper fall in death rates in AP and the country in general. But birth and death rates in these three units, when plotted in graphic form, bring out another reality. The remarkable aspect of the Kerala is the contribution of steeper fall in its birth rate in the narrowing of the gap between birth rate and death rate curves.

Table-5 Fertility implications of medical tecnological interventions

| Year | Mean age of wife | | | Family size ( children) of acceptors | | |
|---|---|---|---|---|---|---|
| | Vas. | Tub. | IUD | Vas. | Tub. | IUD |
| 1975-76 | 32 | 29.8 | 26.0 | Not available | | |
| 1976-77 | 31.7 | 29.3 | 26.1 | | | |
| 1977-78 | Not available | | | | | |
| 1978-79 | 30.7 | 28.8 | 27.5 | 3.3 | 3.3 | 2.6 |
| 1979-80 | 30.7 | 29.8 | 27.3 | 3.4 | 3.5 | 2.6 |
| 1980-81 | 30.7 | 28.9 | 27.3 | 3.4 | 3.5 | 2.4 |
| 1981-82 | 29.9 | 29.2 | 26.3 | 3.6 | 3.6 | 2.5 |
| 1982-83 | 29.7 | 29.4 | 26.7 | 3.2 | 3.2 | 2.3 |
| 1983-84 | 29.1 | 28.8 | 26.5 | 3.1 | 3.6 | 2.5 |
| 1984-85 | 29.6 | 28.7 | 25.6 | 3.1 | 3.2 | 2 |
| 1985-86 | 28.8 | 28.2 | 25.2 | 3.1 | 3.3 | 2.1 |
| 1987-88 | 28.9 | 28.7 | 25.5 | 3.1 | 3.1 | 2.1 |
| 1988-89 | 28.6 | 28.4 | 25.5 | 2..9 | 3.1 | 2 |

The limitations of the medical technological approach towards achievement of the demographic goals need to be recognised. As long as we are looking at achievement of targets for adoption of various contraception measures, we may not be in a position to recognise the limitations of all contraceptive methods to achieve a lower rate of population growth. The national health policy seeks to achieve a net reproduction rate of 1 by 2000 AD. As can be seen at Table-5 the average family size of sterilisation acceptors has remained more or less constant around 3 children. In case of IUD, however, there has been improvement and is currently around 2 children. With this kind of an average family size it will not be possible to achieve a net reproduction rate of one. In the same table the mean age of wife for the three major methods of contraception has been shown for about 10 years. The fall in the mean age of wife has not been very much. In case of tubectomy, by far the most popular method of contraception in India, only one year decline in mean age of wife was noticed between 1975-1987. For all methods the mean age of wife is higher than the age of peak fertility. Evidently many women complete their fertility performance by the time they adopt a permanent family planning method. Thus even if the state were to achieve a couple protection rate of 60%, as is targeted now, it would not be possible to achieve a NRR of one with the medical technological interventions alone.

Table-6 compares some of the fertility related socio cultural indicators of AP, Kerala and the whole country. We know that Kerala has been able to achieve a much lower level of population growth in comparison with AP and the whole country. The population growth rates of AP and the whole country are almost at the same level. It is also

Table6 Fertility related socio cultural indicators

| Year | Mean age at marriage | | | % married among 15-19 year females | | |
|---|---|---|---|---|---|---|
| | AP | Kerala | India | AP | Kerala | India |
| 1,971 | 16.22 | 21.01 | 17.16 | 66.86 | 18.13 | 55.41 |
| 1,981 | 17.25 | 21.85 | 18.32 | 56.27 | 13.98 | 43.47 |

pertinent to note that the average age at marriage of women in AP and the whole country is around the same, whereas in case of Kerala it is considerably higher. This fact is also evidenced from the figures on the proportion of females in 15-19 years who are married.

A major shift in the strategy of the family planning program is called for if the demographic targets are to be achieved and the economic impact of it is to be realised. Emphasis needs to laid on increasing the age at marriage. This can be done through improvement of female literacy, overall literacy, social awareness building and also, as a demonstrative measure, some degree of implementation of the penal laws pertaining to the minimum age at marriage.

Table-7 Status Of Cold Chain Equipment & Vehicles

| Type of equipment | Nos |
|---|---|
| Walk in Coolers | 5 |
| Deep freezers | 1,293 |
| Icelined refrigerators | 1,231 |
| Elocrolux refrigerators | 238 |
| Vehicles | 555 |

## UNIVERSAL IMMUNISATION PROGRAM (UIP):

UIP, launched in 1985, is an offshoot of the expanded programme on immunisation (EPI). It sought to achieve 85% immunisation coverage of all infants with primary vaccination and 100% coverage of expectant women with tetanus toxoid by the year 1990. Andhra Pradesh has reported cent percent coverage by 1990. The programme is implemented through he same infrastructure and staff available for primary health care and family welfare. In addition to the existing state level functionaries under EPI, additional personnel by way of district immunisation officers (DIO), statistical officers, refrigerator mechanics have been provided for. Infrastructural facilities for the maintenance of vaccine cold chain, right from the supply point to the point of delivery has been strengthened (Table-7 ) Extensive inservice training for all the implementing staff at different levels has been provided with UNICEF support.

UIP, originally launched in two districts during 1985-86 has now been extended in a phased manner to all the 23 districts by 1989-90. According to departmental progress reports, the state achieved nearly 100% coverage both for infants as well as expectant women, by 1990-91. The same trend is being maintained during the succeeding years also.

Table8 Evaluation study findings on immunisation status of infants an expectant mothers for different vaccines

| Study | Area | Immunisation coverage | | | | |
|---|---|---|---|---|---|---|
| | | Infants | | | | Preg. women (TT) |
| | | BCG | DPT3 | OPV3 | Measles | |
| NIHFW (1989) | Cuddapah | 32.4 | 62.8 | 61.4 | 26.1 | 73.8 |
| | Warangal | 34.6 | 55.9 | 54 | 15.6 | 76.1 |
| NIN (1990) | ICDS | 48.3 | 65.9 | 66.2 | 27.4 | 69 |
| | non ICDS | 22.5 | 37.8 | 37.2 | 7.2 | 55.4 |

Independent evaluations (Table-8) , however, suggest that the coverage is not as much. A study undertaken by National Institute of Nutrition in 1990 suggest better immunisation coverage in ICDS areas. In these areas coverage for TT (70%), DPT and POLIO was better (66%) compared to other vaccinations. Measles vaccination registered the poorest coverage, closely followed by BCG. The national review of immunisation programme (1989) undertaken by National Institute of Health and Family Welfare also suggest poor coverage in the state. In case of infants, the poorest coverage was recorded for measles in both the districts covered while DPT / POLIO coverage was the best. Though nearly three fourths of the expectant women were receiving TT, when compared with the goal of the programme (100%), the coverage is falling short by 25%.

## ORAL REHYDRATION THERAPY:

The programme envisages to create awareness among mothers regarding quick replacement of fluids lost due to diarrhoea. This is sought to be achieved through intensive health education by grass root health functionaries who have been trained to recognise severity of dehydration and supplementation of fluids through oral rehydration. Timely referral based on severity is also an integral component

## CHILD SURVIVAL AND SAFE MOTHERHOOD (CSSM):

To provide comprehensive maternal and child care UIP districts are being converted, in a phased manner, as CSSM project districts. Main objective is to meet the total needs of both mother and child, starting from care of the young married girls, antenatal care, child birth and care of new born as well as elder children up to 5 years. The package of services envisaged under CSSM include the following :

1. Early registration of all pregnancies, correction of anaemia, by giving iron and folic acid supplements and prevention of tetanus by immunisation.
2. Identification of high risk expectant mothers and providing referral services.
3. Safe delivery at home by training traditional birth attendants, health personnel and providing delivery kit for clean delivery.

The entire gamut of mother and child health programmes including immunisation, anaemia control, prophylaxis against Vit A deficiency, oral rehydration therapy, acute respiratory infections control and birth spacing have been integrated under this programme.

This programme is being implemented in a phased manner in the State. One unique feature conducive to sustainability in both UIP as well as CSSM is the utmost importance given to human resource development. Five day participatory training programme uses the modules specially developed and ends with a community based survey for evaluation. Very low trainee trainer ratio(7:1) , used in these programmes, ensures better interaction and more meaningful participation.

## NATIONAL TRAINING PROGRAM (IPP VI):

National Training Programme (IPP VI) aims to strengthen the health manpower development capacity in the state, by taking up inservice training of medical and paramedical personnel. In addition, the program envisages strengthening of existing health care delivery set up by constructing buildings for 400 sub centres and by providing necessary equipment, particularly vehicles, to the PHCs. Under program a state level autonomous apex institute for multi-disciplinary inservice training and operations research has been set up. Infrastructure development for health delivery through construction of sub centre buildings, and supply of vehicles are also being done.

### Sustainability issues in family welfare programme:

### Factors favourable:

1. Establishment of an apex institute under IPP *VI* to co-ordinate in service training of different health functionaries and also to undertake operations research.

2. Increasing the accessibility of health care services through construction of sub centres and supply of vehicles

3. Motivation of grass root workers by providing promotional avenues. In phased manner all MPHW(f) having more than 5 yrs service are being offered 6 months training to be eligible for promotion as supervisory staff.

4. Involvement of voluntary organisations and private practitioners in the family planning and immunisation services and permitting the NGOs to establish 112 training institutions to overcome the perennial shortage of MPHW(f).

5. Development of detailed microplan for implementation of FW activities in each district considering the local conditions prevailing, manpower availability and communication facilities.

6. Participatary Inservice training programmes for different functionaries under UIP and CSSM programmes

**Factors against:**

1.Too much emphasis on target oriented approach and appraisal based on achievement of physical targets with little concern for quality.

2. Over dependence on medical technological interventions linked with incentives and too little concern for socio-cultural issues like age at marriage, female literacy etc..

3. Another important factor adversely affecting sustainability of the program is its financing pattern. So far, the program has been funded cent percent by the central government which includes both operational and developmental expenses. Considering the size of the funding required to sustain the current strategy, program sustainability is very intricately linked to the central sponsorship. Even at the central government level funding of the increasing demands of the program may be difficult. Therefore, a comprehensive review of the financial incentives schemes for all categories of acceptors may be called for if the program demographic objective is to be sustained within the constraints of resources.

4. Little effort to ensure active participation of key stake holders in the programme planningand implementation.

Table-9 Malaria Surveillance and Incidence Trend in AP

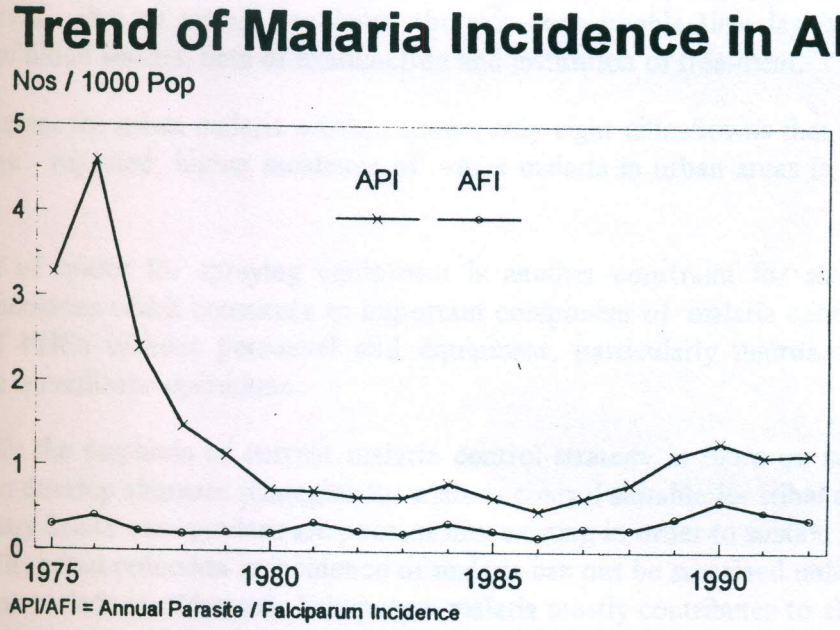
| Year | ABER | API | AFI |
|---|---|---|---|
| 1,975 | 9.9 | 3.27 | 0.3 |
| 1,976 | 11.52 | 4.6 | 0.41 |
| 1,978 | 11.92 | 2.4 | 0.23 |
| 1,979 | 14.13 | 1.48 | 0.2 |
| 1,980 | 13.65 | 1.14 | 0.22 |
| 1,981 | 13.97 | 0.73 | 0.21 |
| 1,982 | 13.82 | 0.71 | 0.34 |
| 1,983 | 12.54 | 0.64 | 0.24 |
| 1,984 | 12.01 | 0.64 | 0.21 |
| 1,985 | 11.89 | 0.81 | 0.34 |
| 1,986 | 12.82 | 0.64 | 0.25 |
| 1,987 | 9.6 | 0.49 | 0.17 |
| 1,988 | 11.82 | 0.64 | 0.28 |
| 1,989 | 12.33 | 0.8 | 0.26 |
| 1,990 | 11.63 | 1.14 | 0.4 |
| 1,991 | 11.74 | 1.3 | 0.6 |
| 1,992 | 11.88 | 1.13 | 0.48 |

## Centrally Sponsored Disease Control programmes:

### NATIONAL MALARIA ERADICATION PROGRAMME (NMEP):

This program has been operational in the state since 1958. Program cost is equally shared (50:50) between state and central governments. A modified plan of operations was introduced in 1977. Main components of the current strategy include elimination of deaths due to malaria and reduction of morbidity.Operationally it is targeted to bring down the annual parasite incidence (API) to 1.9 by 1990 and to less than 0.5 by 2000 AD.

The programme, is being implemented through the multipurpose primary health care institutions. Earlier malaria control workers were vertically organised right down to the sub




centre level. At the state level there is a dedicated malaria control wing in the directorate of health. The district malaria officer co-ordinates the program in each district while PHC medical officers are responsible for the day to day field operations. In tribal areas the health workers generally give top priority to malaria control program.

Under the programme, blood smears are expected to be collected and examined (Annual Blood Examination Rate; ABER) from at least 10% of the total population during a calendar year. This sampling ratio has been maintained all along and the ABER has been either 10 or above. As can be seen from the above graph incidence of malaria in the population is much lower than what it was around 1975. However, a slight increase in incidence was noticed in late 80s compared to the lowest level achieved between 1980 - 1988. Another interesting feature is that the incidence of falciparum malaria has more or less remained constant right from the beginning. In addition, there is evidence of further increase in falciparum incidence in the recent years. This suggests that the program has been mainly directed towards the vivax malaria. Out of the total Plasmodium falciparum cases (21,940 in 1992, up to Nov.), 87.5% were from the tribal areas. A total of 49 tribal PHCs in the state have reported very high incidence (API >2) at present. This implies that special attention needs to be paid to the problem in tribal areas which contribute majority of the falciparum cases.

Incidence of urban malaria seemed to be on rise. It is estimated that about 40.8% of the total positive cases of malaria are from the urban areas. Considering that the share of urban population is around 27%, the incidence of malaria in urban areas is disproportionately higher

**Sustainability issues:**

1. If the programme efficiency is considered, the data of past 18 years clearly suggest that the proportion of individuals whose blood smears were collected (ABER) is consistently above prescribed norm (10%).

2.Considerable decline in positive cases also indicates efficient vector control and surveillance activities. However, the incidence of falciparam malaria, which remained more or less constant, indicates that programme implementation has been less effective in tribal areas. In tribal areas, due to terrain problems, there is considerable time lag between date of collection of blood smears, date of examination and institution of treatment.

3. At present the urban malaria scheme covers only eight cities/towns that too confined to slums. The reported higher incidence of vivax malaria in urban areas is, therefore, not surprising.

4. Lack of spares for spraying equipment is another constraint for sustaining regular spraying operations which constitute an important component of malaria control. Also, rapid creation of PHCs without personnel and equipment, particularly microscopes, adversely affected the surveillance operations.

Obviously the emphasis of current malaria control strategy in more on rural areas. It is necessary to develop alternate strategies for malaria control suitable for tribal and urban areas where primary health care services are poor or non existing in order to sustain the gains so far achieved. The initial reduction in incidence of malaria can not be sustained unless the problem of falciparum malaria is addressed. Falciparum malaria mostly contributes to all deaths due to malaria. Hence substantial reduction in mortality due to malaria would be difficult unless falciparum malaria incidence is reduced and timely treatment of these cases are ensured. Ensuring involvement of key stake holders through establishment of drug distribution centres and fever treatment depots, as envisaged in the programme, should receive priority. Private practitioners in urban areas should be encouraged to collect blood smears from all fever cases and a system by which these smears can be collected locality wise, and examined need to be developed. Vivax malaria, which requires radical treatment, is common in urban areas. This necessitates administration of primaquin. However, in India to avoid abuse, primaquin is provided only under the national programme. If primaquin is not provided, the patient is likely to have a relapse and can also be a source of infection . The proposed strategy in urban areas, therefore, should consider these important aspects. This may not be a problem in tribal areas as the falciparam malaria doesnot require radical treatment.

**National Tuberculosis Control Programme (NTCP):**

Tuberculosis is major public health problem in the state with an estimated 10 lakh people suffering from the disease. Out of them 2.5 lakhs are sputum positive and hence are infectious. The NTCP is being implemented since 1962. The expenditure under plan is borne by state and centre on a 50:50 basis. While government of India supplies anti tuberculous drugs, X-ray films, X-ray units, vehicles and other equipment towards its share, the state government's contribution is being used for procurement of balance anti-TB drugs, continuation of ongoing schemes and construction of buildings.

Programme's goal is to bring down prevalence of tuberculosis infection in the age group of 0-14 years to one percent, which at present is around 3% for the whole country.

DTC acts as the nucleus for programme implementation. To ensure the effective and continued delivery of services, particularly the case finding and treatment, the programme has been integrated with the primary health care delivery. Each PHC is expected to examine 2 sputa per day, i.e. a total of 50 sputa per month and 600 per year. Multipurpose male health

workers are to collect six sputum slides from symptomatic persons during their field visits and bring the slides back to PHC for confirmation. Since the treatment for tuberculosis used to be prolonged , case holding always was a problem. Hence a "short term chemotherapy", cutting short the treatment to six months, has been introduced in 20 districts

**Sustainability issues:**

1. Poor case detection by PHCs: The PHCs could achieve only 31% out of the annual target of 2,52,600 sputum examinations with a slide positivity rate of 3%. While the taluk hospitals/TB clinics could achieve 35% of the targets with a slide positivity rate of 8%, the bulk of the cases (42%) were identified by the DTCs. One important reason for poor case detectection by PHCs could be rapid creation of Primary Health Centres in the state as a result the physical infrastructure facilities needed for the programme, such as microscopes, X Ray equipment could not be provided. In terms of personnel also, the lab technician posts in several PHCs are yet to be filled up. Also, non functioning of X ray equipment and perennial shortage of X ray films adversely affected the programme sustainability.

2. Poor yield of Bacillary cases by DTCs: An Operations Research Study on potential yield of Bacillary cases in national tuberculosis control programme undertaken NTI, Banglore indicated that each DTC can detect about 2000 bacillary cases annually[13]. Thus the existing 22 DTCs should identify about 88,000 cases in a year. However, the total sputum positive cases identified by all DTCs in the state during 1991-92 was 11,660 which is only 13% of the potential yield. The national average for the same is around 30%.

3. Information on case holding is sketchy but the available data suggests that it is poor and ranges between 30-35%. One important reason for this could be prolonged duration of treatment and need for making repeated trips either to DTC or to PHC by the patients. The short term chemotherapy introduced in 20 districts could not be sustained due to short supply of anti-tuberculous drugs, particularly rifampicin and ethambutol.

4. It is obvious from the above data that case finding under the programme it self is very poor. It is certain that private practitioners play a crucial in tuberculosis detection and treatment. While detailed information in this area is sadly lacking, the present estimates suggest that about a fourth of the new tuberculosis cases are being detected and treated by private practitioners/voluntary organisations and other agencies like railways, ESI, Defence health services etc.

To sustain the programme it is necessary to evolve a comprehensive strategy involving all these agencies. The scope of delivering anti TB drugs on case to case basis to the private practitioners need to be evolved as the problem of tuberculosis attains much more public health significance in light of impending AIDS epidemic. Also, the scope for linkage between the tuberculosis and leprosy control could be explored as both diseases share several common features and success stories of MDT could be repeated in tuberculosis control also.

**NATIONAL LEPROSY ERADICATION PROGRAMME (NLEP):**

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[13] National Programme for Control of Tuberculosis, National Health Programme Series 10, NIHFW 1988.

Andhra Pradesh is a known endemic area of leprosy with an estimated case load of 6.28 lakhs. The national leprosy control programme is being implemented in the state since 1955. The working group constituted by government of India (1982) recommended a revised strategy through multi drug therapy (MDT) for the control of source of infection and thereby breaking the chain of disease transmission. Consequently objective of the program was upgraded, in 1983, from control to eradication. At present all the districts in the state have been brought under MDT. The programme is implemented through leprosy control units (LCU), survey, education and treatment (SET) centres and urban leprosy centres. Each LCU, with one medical officer, four non medical supervisors, and, 20 paramedical workers (PMWs) covers about 4.5 Lakh population. Thus each PMW covers about 15-20,000 population. NGOs like Lepra India, Alitalian organisation, NORAD, CIDA have been playing a leading role in the implementation of the programme. A well developed system of programme monitoring from periphery to state headquarters, through monthly, quarterly, and yearly reports is functioning.

It is a centrally sponsored programme with 100% assistance from government of India. In addition, some NGOs have been providing active support for the programme. In the districts of Medak and Karimnagar, the Lepra India supplies the drugs while in chittoor district this responsibility was taken by Alitalian Organisation. A significant decline in the prevalance of leprosy has been reported subsequent to the introduction of MDT.

The Sustainability issues of this programme have been discussed in detail at the end of this paper, where success stories and failures are presented.

**Nutritional Anaemia Control Programme (NNACP):**

Nutritional anaemia is an important public health problem afflicting children and women in child bearing age. Studies suggest that anaemic women suffer more menustuarl bleeding after IUD insertion. The programme envisages supply of iron and folic acid to children less than 12 years, expectant and lactating women and family planning acceptors for a period of 100 days once every year to control the nutritional anaemia. This programme, operated through the PHC staff. MPHW(F) is the field worker who delivers the supplements to beneficiaries and also acts as a link between the community and implementing authorities. Recently services of anganwadi workers are also being utilised.

Table-10 Multi Centric Evaluation of NNACP (1984-85)[1]

| Beneficiary Type | Estimated Nos. | Target fixed | Reported Coverage | Percent Coverage | |
|---|---|---|---|---|---|
| | | | | As Reported | As Surveyed |
| Women | 3,239,309 | 1,500,000 | 1,978,305 | 61.1 | 5.1 |
| Children | 12,611,711 | 1,500,000 | 1,701,499 | 13.5 | 0.6 |

[1] Source: ICMR task force study, 1989, conducted in 11 states. Above data relates to AP.

Consistent good coverage has been reported for this programme by the department. However, a multi centric evaluation, undertaken by ICMR, suggests very poor coverage (Table-10 ).

According to the study, the targets fixed under the program coverage were much lower than the estimated beneficiaries. Secondly actual coverage, as assessed by community based surveys, was much less than the coverage reported.

**Sustainability Issues**

:Supplementation of Iron and folic acid to the vulnerable constitute only a short term solution. In addition to poor coverage, the same study also identified that available quantities of Iron and folic acid in the tablets supplied under the programme was much lower than the prescribed norms. Consumption of such supplements may not give the desired nutritional impact. The long term and sustainable solution, therefore, will be dietary modification ensuring adequate intakes of Iron through the food.

Table-11 AIDS Screening in Andhra Pradesh

| Year | Surveilance Centres | | Zonal Blood Banks | | STD Mobile Units | |
|---|---|---|---|---|---|---|
| | Screened | Positive | Screened | Positive | Screened | Positive |
| 1986-89 | 14,167 | 25 | | | | |
| 1,990 | 2,233 | 26 | 15,315 | 3 | | |
| 1,991 | 4,469 | 63 | 23,742 | 51 | 790 | 12 |
| 1,992 | 4,871 | 184 | 29,279 | 74 | 193 | 12 |
| Total | 25,740 | 298 | 68,336 | 128 | 983 | 24 |

## AIDS CONTROL PROGRAMME:

This programme, in addition to co-ordinating the AIDS control activities in the state, aims to improve the quality of blood transfusion services particularly in view of large quantities of donations from the professional donors. The program is fully funded by the centre (100%). It's objectives include:

1. To ensure safe blood transfusion.
2. To develop policy on indications for blood transfusion and fixing criteria for selection of blood donors and their acceptability.
3. To strengthen and further develop blood transfusion services,collection and storage of blood on a sustained basis.

As a part of AIDS control activity, three surveillance centres were set up in 1986 at Hyderabad, Vishakhapatnam and Tirupati.The screening of blood at majority of transfusion centres in the state , hitherto, is essentially confined to VDRL, hepatitis B antigen and malaria parasite. As there is no mechanism, at present, to oversee the blood transfusion services, the AIDS control program seeks to introduce comprehensive programme for development of blood bank services. Under the programme 11 zonal blood transfusion centres have been set up so far. All these centres have been provided with Elisa kits for undertaking AIDs screening. Another seven blood banks have been earmarked for modernisation during 1992-93. Table-11 shows the quantum of surveillance work in the state. In most of the centres not more than 50% of the samples could be screened due to various problems.

## NATIONAL STD CONTROL PROGRAMME

Under this programme, one regional STD laboratory cum training centre was established in the year 1985 at Osmania Medical College, Hyderabad.This is a 100% centrally sponsored scheme to assess the incidence of STD in vulnerable sections of population and offer training to medical and para medical workers in the diagnosis and treatment of STD cases. The

reference laboratory also helps to analyse the STD samples received from different districts and hospitals.

In addition, there are about twenty-seven STD clinics in the state. Precise estimates of STD prevalence / incidence is not possible due to incomplete and irregular reporting. Hospital records, however, indicate that the incidence is more common among drivers, migrant labourers and rickshaw pullers. Gonorrhoea seem to be the 'most common' STD., followed by syphilis.

To assess the incidence of STD in vulnerable sections of population a regional survey cum mobile STD unit is functioning under the control of deputy director health services. This unit undertakes surveys in high risk areas such as pilgrim centres, tourist spots, industrial slums, ports, tribal areas,and forwards the blood samples to the regional laboratory. During 1991-92 about 4637 individuals have been screen by the regional survey team. The regional lab cum training centre also imparts training and conducts workshops for medical and paramedical staff in the laboratory aspects of various STDs. So far, fifty-six medical officers and several paramedical staff were trained by the centre.

**Sustainability issues:**

Aids is turning out to be a major public health problem. Among various risk factors, blood transfusion constitutes an important factor. Since considerable number of government as well as private blood banks do not have the facility to undertake aids screening, there is immediate need to ensure the safety of blood. Appropriate legislation may be necessary to ensure safe use of blood and blood products. Recently Supreme Court has passed orders which forbid transfusion of Blood without AIDS Screening. However, implementation of such orders is difficult in practice. To sustain such efforts, the government should also enlist the support of NGOs and Private practitioners in encouraging voluntary blood donation and also to monitor the activities of both government and private blood banks.

One important factor in private sector is that the cost per unit blood will certainly go up if Aids screening is made mandetary. As government blood banks always may not have adequate stocks, this price raise may adversely affect the poorer sections more in emergency situations. To avoid these problems, the government should ensure that the AIDS screening kits are provided at subsidised prices to all registered private blood banks. Also a mechanism of randomly checking blood samples both from public as well as private sector blood banks should be developed to ensure the safety.

Educating the Community, particularly the high risk groups, through effective and Culture appropriate IEC strategy should receive utmost priority both in STD as well as in AIDS control.

## NATIONAL PROGRAMME FOR PREVENTION AND CONTROL OF BLINDNESS.

This programme, launched in 1976, also incorporates earlier trachoma control programme and massive dose Vitamin-A administration to pre-school children. It is 100% centrally sponsored programme. The ultimate goal of the programme is to reduce prevalence of blindness from present 1.4% to 0.3% by 2000 A.D. by incorporating comprehensive eye care services in the primary health care delivery system. The programme envisages to achieve this goal through both short and long term strategies which rely on camp approach to reach far flung areas and development of permanent eye care infrastructure respectively. Infrastructure

development would involve posting of trained / qualified medical and paramedical man power as well as equipping the institutions at different levels with essential ophthalmic instruments. Mass education on eye care through media, talks and interpersonal communication is also envisaged.

At the state level, an ophthalmic cell, headed by a deputy director, oversees the programme implementation. The regional eye hospitals and the eye speciality of the district hospital have been the pivots of the program. As the camp approach is continuing to be the main instrument of cataract surgery the mobile units located at these centres play a very crucial role. In addition to S.D eye hospital, there are three regional hospitals functioning in the state at Warangal, Kurnool and Vishakhapatnam. These institutions function as tertiary level referral hospitals and each provides training for 15 ophthalmic assistants every year. There are two types of mobile units. The central mobile units are attached to medical colleges / regional eye hospitals with 2-3 vehicles, ophthalmic equipment, appropriate staff and publicity material. The district mobile units are functioning as extension units of district hospitals with one vehicle, necessary equipment and personnel. At present there are five district mobile units (DMUs) functioning in the state. To improve recognition and treatment of eye problems the PHC medical officers are being trained at district hospitals. In some PHCs a post of ophthalmic assistant has been created to assist the medical officer. So far about 230 centres have been covered out of the total of 1246 PHCs.

For treatment of corneal blindness, one eye bank is functioning at Hyderabad. Though, three more eye banks were sanctioned between 1983-89 at Kurnool, Vishakhapatnam and Guntur, they could not be established for want of sufficient funds.

*Vitamin A Prophylaxis:* Blindness due to Vitamin-A deficiency is an important public health problem. Community based surveys undertaken by national nutrition monitoring bureau in Andhra Pradesh suggest that Vitamin-A is the most limiting nutrient in diets which on an average provide only 37.9% of recommended dietary allowences. The programme aims to prevent nutritional blindness by periodic administration of massive dose Vitamin A (200,000 IU) to all pre-school children. The massive dose vitamin A programme is integrated with primary health care services is under the technical control of director family welfare. At the periphery it is the responsibility of the MPHW(F) to administer the dose and also to educate the mothers.

Though considerable coverage is claimed, independent evaluations undertaken by National Institute of Nutrition suggest that coverage of beneficiaries, in a number of primary health centres, was very poor. Even in ICDS areas, where coverage is expected to be better, only 45% coverage of eligible children was recorded while in non ICDS areas it was only around 18%.

**Sustainability issues:**

To improve the programme sustainability, the State Government is negotiating for a world bank loan mainly to develop the infrastructural facilities and human resources.

One unique aspect of this programme, unlike many other national programmes, is the active participation of NGOs and private practitioners. This is bound to have a lasting impact on sustainability. Another heartening feature of the proposed strategy is to constitute district

committees with adequate representation of NGOs to co-ordinate the blindness control activities of the district.

In view of the reported mishaps in the eye camps, which often result in irreversible blindness, there is an immediate need to ensure proper standards for organising these camps and also to develop a machinery to oversee the quality of care.

It is surprising to note that while blindness control programme is under the control of directorate of health, another important component of blindness control i.e. massive dose Vitamin A administration is under the control of directorate of family welfare. This naturally results in confusion and lack of co-ordination.

## State Programs:

### MINIMUM NEEDS PROGRAMME:

The health component of this program is mainly directed towards building up of primary health care network to provide the basic infrastructure for implementation of public health and family welfare programs. Operational targets under the rural health component sought to be achieved by the year 2000 AD consist of:

1. One sub-centre for a population of 5000 in plains and 3000 in tribal and hilly areas
2. One primary health centre for 30,000 population in plains and 20,000 population in tribal and hilly areas and
3. One community health centre (PHC with a 30 bedded rural hospital) for a population of one lakh .

The state directorate of health is responsible for establishment and operation of the PHC and sub centre network . Regional directors, district medical and health officers provide regional managerial and logistic support to the PHCs and sub centres. Location of new centres are identified on the basis of population coverage, correspondence with general administrative and developmental units, availability of land and other material support from the local community etc. As a mandal ( Unit of revenue and panchayati raj administration in the state) is organised around 35,000 population, each would have at least one PHC. The PHCs set up earlier at the block level (roughly 100,000 population) are being upgraded into community health centres.

### Sustainability issues:

According to norms suggested by the National Health Policy, there should be 1696 PHCs in the state by 2000 AD. The state, however, has 1246 Primary Health Centres and 174 Community Health Centres at present. Government of AP propose to establish about 397 more PHCs in the state by the end of 8th plan (1994-95).

Since many of the mandal primary health centres were established in a hurry, it is not uncommon to notice that they lack proper accommodation, personnel and equipment. It is. therefore, not surprising that their contribution to the sustainability of national health and family welfare programmes, as discussed earlier, is not to the desired extent.

## SCHOOL HEALTH PROJECT:

**Objectives:**

The project seeks to promote positive health among school going children (6-11 years) and early detection of disease through regular screening and surveillance activities followed by prompt treatment The key elements of the programme are:

1. Enhancement of health education in school curricula.
2. Training programmes for mothers and local leaders to ensure better community participation.
3. Streamlining of existing screening programmes in order to target major health problems among primary school children.
4. Suggesting appropriate modifications in the working pattern of health workers to provide the required follow up services.
5. Ensuring adequate supply of drugs needed for essential treatment
6. To provide school health kits, containing a range of drugs for common illness and minor accidents
7. Development of criteria for referral, investigations and treatment.
8. Capacity building among teachers by training them in simple screening procedures and first aid.

**Implementation:**

The program is managed at the state level by a program director, in close liaison with the director of health. A registered society has been set up to provide operational autonomy. In districts one officer would exclusively co-ordinate the program activities. Phased coverage of the districts is envisaged. The project is being implemented by integrating the activities of the existing medical and health infrastructure with that of the "Primary Education Project". The existing School Health Services, under the programme, are being strengthened by a comprehensive programme of training and by making appropriate changes in the operational policies and management arrangements.

**Duration And Funding:**

The total project duration will be seven years which will be split in to two phases. The first phase will be for a period of five years with a total ODA budget of Rs.1755.97 lakhs. The additional funding by the Government of Andhra Pradesh will be to the extent of Rs.361.45 lakhs. A mid term evaluation of the project will be undertaken at the end of third year.

**Sustainability issues:**

The aid money is used essentially for non-recurring expenditure, which will includes training, staff development and purchase of major items of equipment but not for the ongoing supplies, salaries, maintenance of equipment etc. The project relies heavily on the retraining of the existing staff which includes teachers, para medical staff and doctors. Approximately 17,000 MPHWs and supervisors and 173,000 primary school teachers in addition to other health staff will get trained in this project. The sheer number of human resource made available across the state it self is phenomenal which makes it easier for the State Government to sustain programme when once the external aid is withdrawn.

## GOITRE CONTROL PROGRAMME

Goitre is a major public health problem in the state. The Iodine deficiency manifestations are not limited to endemic goitre and cretinism, but to a much wider spectrum of disabilities including mental retardation, impairment of intellectual and motor function, deaf mutism etc. Goitre surveys undertaken in certain Tribal belts suggest incidence up to 64%.

The programme specifically aims to promote awareness in the community regarding Iodine deficiency disorders (IDD) and their prevention through the use of Iodised salt. Production, pricing and distribution of Iodised salt, therefore, is the most important component of the programme. Goitre surveys, to assess the magnitude of the problem and also its impact, constitute another component of the programme. Universal Iodination of edible salt is ultimately envisaged by the programme.

A centrally sponsored goitre cell was established in 1987, at the Directorate of Health Services to co-ordinate various activities. The program was brought under the state plan during 1990-91. To ensure the supply of Iodised salt in the Tribal areas, a spray salt iodination plant was set up by the Integrated Tribal Development Authority, Paderu during 1986. The Director, Institute of Preventive Medicine and State Food and Health Authority Govt of A.P., has issued prohibitory order[14] banning the sale of edible common salt in the tribal areas of East Godavari, Visakhapatnam and Adilabad districts.

In view of wide spread goitre and IDD problem in the country, even in areas hitherto not known to for endemicity, the Government of India , as a national policy, has decided to fortify all the edible salt in the country in a phased manner. In this context, it is necessary to develop infrastructural facilities for salt fortification and distribution at state level. Banning the sale of non fortified edible salt through prevention of food adulteration act is an important component to achieve this objective. The Sustainability Issues of this programme have been discussed in detail at the end of the paper.

## N.G.O.Progammes

The Voluntary health sector has a significant presence in the state of Andhra Pradesh. Starting from humble beginnings, some of them have grown in to massive organisations providing modern curative facilities. Unfortunately, only limited data on NGOs functioning in the state is available. The NGOs directly or indirectly involved in health sector could broadly be classified as follows :

1. Hospital based curative services
2. Community based comprehensive health services
3. Maternal and child health services
4. Disease specific services Ex: Leprosy ; Tuberculosis ; Eye care
5. Training of health manpower
6. Women and child welfare
7. Community Developmental activities

## VOLUNTARY HOSPITALS & CURATIVE SERVICES:

Several NGOs in the state are involved in providing curative services. These institutions range from dispensaries providing out patient services to large multi- speciality hospitals having several hundred beds. A review[15] suggest that there are more than 250 such institutions across the state providing hospital based care. The total bed capacity in NGO sector is estimated to be around 10,000.

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14 Government of Andhra Pradesh,; GOMs No 45/HM&FW dt 23/1/1991.

15 Voluntary Health Association of India (VHAI)...

## COMMUNITY BASED COMPREHENSIVE HEALTH SERVICES INCLUDING OUTREACH:

About 30 NGOs located in different districts, have been providing comprehensive health care with referral services. The 'Boat Hospital' being run in Khammam district by AWARE is a good example of community based health services provided by voluntary sector.

## MATERNAL AND CHILD HEALTH SERVICES:

Most of the hospitals and dispensaries belonging to NGOs give special emphasis on maternal and child health services. In a comprehensive review[16] of agencies involved in women and child welfare activities , mailed questionnaire was sent to 1000 agencies listed by social welfare department. Out of the 742 who responded, 454 (61%) belonged to voluntary sector. The study, however, identified that most of these organisations are unevenly distributed between the districts and sudden spurt in these organisation after 1970s was attributed mainly to government policy of liberalised rules and simplified registration procedures.

## DISEASE SPECIFIC SERVICES:

The NGO sector has been playing a pioneering role in leprosy control activities in Andhra Pradesh which is a known endemic area. A directory of leprosy relief agencies aided by German Leprosy Relief Agency lists about 10 organisations. The VHAI data suggests that there are about 30 institutes, located in different districts, providing leprosy relief. According a conservative estimate about a quarter of coverage under present MDT programme is being undertaken by the NGO sector. Few important aspects relevant to sustainablity of leprosy control activity being undertaken by NGOs include, man power training, vocational rehabilitation and rehabilitation of children born to the patients.

In case of tuberculosis control, with the emphasis shifting from institutional care to domiciliary care, several sanatoria under NGO sector have been converted to hospitals providing general services. In case of eye care, some voluntary agencies like lion's club have established institutions in urban areas while a majority confine to organising out reach operations utilizing the services of mobile ophthalmic units under the national blindness control programme.

## TRAINING HEALTH MAN POWER:

Several NGOs have been providing training for different levels of health functionaries. In addition to 112 NGOs recognised by the Dept of Family Welfare Govt of AP to provide training for MPHW females, there are about 14 organisations offering 3 month pre-placement training programme for Anganwadi workers following the guidelines of National Institute of Public Co-operation and Child Development (NIPCCD). Several NGOs involved in leprosy control activity offer training in areas like case detection, bacteriological examination, reconstructive surgery etc.

## FINANCE:

Though many voluntary agencies charge for the services offered, these amounts are nominal and at the maximum cover the cost of drugs. It is, therefore, necessary for the NGOs

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16 Centre for Economic and Social Studies (CESS)...

to raise funds to develop and maintain the infrastructure and to pay salaries to the staff. The usual sources of NGO funding include

1. Governmental grants
2. Individual donations both from India and abroad
3. Aid from International agencies
4. Loans from financial agencies
5. Resources generated through paid services and sale of products

To understand the funding and spending of NGOs, detailed information from two organisations specialising in areas of specific disease control, comprehensive community development has been collected.

*Shivananda Rehabilitation Home:* This is one of the largest charitable home in the State accommodating about 1000 destitute leprosy patients. Started in 1958, the home at present receives a government grant of rupees five lakhs every year. In addition, the municipal corporation of Hyderabad provides about Rs.7 lakhs for undertaking urban leprosy control activities in twin cities covering a total population of 11 lakhs. The German leprosy relief organisation has been providing medicines and also funds to maintain the 200 bedded hospital located within the home for treating severe cases and reconstructive surgery. Donations from individuals/trusts and income generated through the sale of products made by inmates constitute other sources of income.

*Action for Welfare and Awakening in Rural Environment (AWARE):* This organisation is exclusively serving tribals and socio-economically deprived groups covering 1750 villages with a total population of 9,75,000 in the backward telangana region of the state. The organisation aims at an integrated development of which health is an integral component. The annual budget is around Rs.40 million of which 40% is raised from overseas funding. Another 25% comes in the form of credit from banks. While people's contribution is around 24%, grants from central and state governments account for 5.5% . The balance (5-6%) comes out of revolving fund and income generating activities.

## Contribution of NGOs towards sustainability of health programmes:

**Capacity Building:**

The NGOs have been playing significant role in training of grass root health workers in the state. In addition to Multipurpose health workers and Anganwadi workers training schools, several NGOs provide training for community health volunteers and Traditional Birth Attendants (TBA). A profile of CHAI suggest that a third of its member institutions offer training for community health workers while 10% train TBAs. Many of the member institutions regularly organise inservice training programmes also.

**Participatory Development:**

Most of the NGOs, unlike governmental organisations, encourage active participation of community in their programmes. In this context, it is worthwhile mentioning the experiment of Shivananda Rehabilitation home where all staff, except doctors and nurses, are inmates.

**Skill Building For Vocational Rehabilitation:**

Several NGOs, particularly those involved in leprosy control activities, offer vocational training in areas like sewing, candle making, hosiery, weaving, workshop training etc., to the

patients. Some NGOs have worked out an arrangement with few industries for placement of such trained patients. Few even offer interest free soft loans for such trained patients to start their own establishment.

**Integrated Development:**

The ultimate health status of the community is determined by several systems which include food production and distribution, gainful employment and purchasing power, environment and education etc. Unless and until there is an integrated development of these sectors, health status will not register improvement. Several NGOs, appreciating this reality, started integrated community development activities rather than confining to hospital based curative services. Some such examples in the state include AWARE (Khammam District), Bhagavatula Charitable Trust (Visakhapatnam), Chetna and Deccan Development Society etc.

## External Funding & Sustainability Of Health Sector Programs In A.P:

The Government of Andhra Pradesh has been receiving assistance and support of several international agencies for improving the health status of the community. The areas in which such assistance is received include family welfare, maternal and child welfare, school health and specific disease control programs.

**Family Welfare:** For the area development project the state of Andhra Pradesh has been receiving aid from World Bank under India Population Project (IPP).

In IPP II, operated between 1980-88, about 653 sub centres and about 1166 residential quarters were built. Independent evaluation of the scheme, undertaken by Operations Research Group in selected PHCs, suggest that the inputs provided under the project resulted in overall improvement in the availability of health care.

The National Training Project (IPP VI) aims at strengthening manpower development capacity of health and family welfare department. In addition to organising inservice training for different categories of medical and paramedical personnel, the project envisages strengthening the service delivery by constructing buildings for 400 sub centres and also providing necessary equipment and transport.

Maternal and Child Welfare: The international agencies supporting maternal and child welfare services in the state include Unicef, World Bank and CARE. In addition to providing vehicles, weighing scales, growth charts etc., for ICDS projects, the Unicef is actively involved in Universal Immunisation and Child Survival & Safe Motherhood programmes. Contribution are usually in the form of man power development through inservice training and infrastructure support. Recently few ICDS projects have been started in the state with World Bank loan while CARE extends support in the form of supplementary food. Unicef has been providing specific support for development of women and children in 15 districts and also for adolescent girls in ICDS project areas. In 29 towns Unicef is supporting Urban Basic Services programme along with department of Municipal Administration and Urban Development. Other areas of Unicef support include education, safe drinking water supply, environmental sanitation, community based convergent services and prevention of childhood disability.

**School Health Project:** The school health project is a novel scheme aided by British Overseas Development Administration (ODA). This support will be for a period of seven years. The Govt of A.P., by the end of this period, will be taking over the project thus ensuring sustainability. The total ODA funding during the first five years will be 1,755.97 lakhs while the Govt of A.P. will bear an expenditure of Rs.361.45 lakhs.

**Specific disease control:** The multi drug therapy under National Leprosy Eradication Programme, has been receiving aid from several International agencies. These agencies include German Leprosy Relief Organisation, WHO, SIDA, Unicef, USAID, Lepra, NORAD etc.

Similarly Blindness prevention programme is also receiving liberal aid from agencies like Royal commonwealth Society, Lions and Rotary Internationals etc.

## TRAINING

The human resource development is an important determinant of sustainability. Almost all health care programmes, require professional skill as well as personal face to face interaction with the community. Hence, the skill endowment of health care personnel has great impact on sustainability of programmes.

There are two stages involved in making skilled manpower available for health programmes. Firstly, the medical and health educational institutions impart basic technical skills. The products of these institutions are recruited under various capacities in the functional areas of health sector. The second stage includes training of candidates recruited into a particular institution / programme which is popularly known as post recruitment /inservice training. Thus the two types of training which are essential to develop and maintain appropriate skill level for programme implementation include (a) pre placement training and (b) reorientation training

### Pre Placement Training:

Pre placement training prepares a person to apply his basic skills in the context of the organisational environment into which he is going to be placed and for the achievement of specific goals being set for him. Such training courses essentially focus on procedures of doing things in the particular organisation. That is why almost all civil service positions require a period of probation, during which the recruits acquires knowledge of organisational procedures. Medical Officers occupy pivotal managerial position in health care delivery programmes. Unfortunately, they are not given any pre placement training in public administration. As a result most of them are helpless in handling the departmental transactions with other service institutions like the treasury, the audit , general administration etc. It would be desirable to provide for at least one year pre placement training in public administration during the initial two year probation period. The first phase of the training could be for 9 months, followed by one year's posting to a PHC and then a second Phase of 3 months training to focus on the field experiences of the officers. Unfortunately the initial training Project (IPP I) has failed to satisfactorily address this issue for medical officers.

### Reorientation Training:

Reorientation of health workers in current programmes and strategies is essential for successful health care delivery. Special training in important areas like Universal Immunisation, Oral rehydration, Child Survival and Safe Motherhood, Acute Respiratory infection are being organised to achieve National Health Goals. One significant development in these training programmes is the involvement of Medical College Faculty, which hitherto confined mostly to training of Medical students. This will give them a feedback on practical

difficulties being faced by the Health functionaries in field areas and to arrive at feasible solutions for day to day problems. To strengthen their efforts and to institutionalise the arrangements for in service training, a training project under IPP VI has recently been established.

**NATIONAL TRAINING PROJECT (IPP VI):**

The project aims to improve basic and in service training of health personnel. Programme strategy includes

1. Orientation of health functionaries about their job content within six months of appointment.
2. Regular vigorous staff development programmes at intervals of 2 to 5 years
3. Development and optimisation of training infrastructure
4. Focused training programmes on priority health programmes

## Some Successes:

## Guineaworm:

Guinea worm disease eradication programme has shown considerable progress in the recent years. As against 753 villages affected with guinea worm in the state at the inception of programme in the year 1984, the disease is limited now to only 55 affected villages by the end of 1992. Similarly as against 4,461 guinea worm cases detected at the inception of programme in the year 1984, the same have declined to only, 30 cases by the end of 1992. It is expected that the State may achieve zero level incidence during the year 1993, as per the National goal set by Government of India.

The programme is a centrally sponsored scheme with 80% share, launched in the year 1983-84. The Health and Panchayat Raj Engineering Department co-ordinate their action. The later helps in conversion of step wells, provision of spot drinking water sources . Program strategy includes:

1. Early detection of all Guinea Worm cases through house to house search operations in all the areas in the State. Three searches in a year April/June/December, are conducted in addition to regular Guinea Worm Surveillance, in all districts irrespective of endemicity.
2. Timely management of all detected cases.
3. Identification of unsafe drinking water sources and their regular treatment with chemical called temiphos (Eight application in a year), or educating the villagers to filter the water using cyclops strainer.
4. Provision and maintenance of safe drinking water sources, including conversion of step wells into safe sources in endemic villages.
5. Intensive Health Education to patients, community.
6. Development of trained man power at State / District at PHC level for implementation of Guineaworm Eradication Programme.

## FACTORS CONTRIBUTING TO SUCCESS AND SUSTAINABILITY OF THE GUINEA WORM PROGRAM:

It is difficult to attribute the success and sutainability of guineaworm eradication programme to a single factor. Epidemiological characteristic (technological) of the disease, socioeconomic and managerial factors have all contributed to the success of the program.

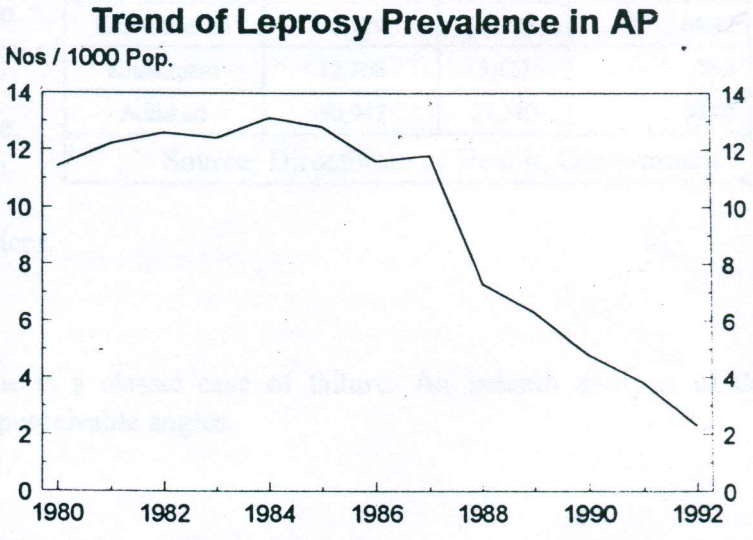
**Epidemiological:**

1. Clinical diagnosis in endemic areas is easy.
2. Man is the only reservoir of infection.
3. Very few cases are asymptomatic, and even this is of no public health significance as they do not transmit the disease.
4. A simple change from step well to a bore well or draw well etc. is enough for prevention of the disease. This change is enough to ensure that transmission of the parasite is prevented. This is unlike other water borne diseases, like say gastro-enteritis, where the microbial contamination of water from borewell, draw well or piped supply sources is important.
5. Simple effective intervention techniques available for adoption at the house hold level.
6. If the transmission season breaks in one season it is difficult for the worm to re establish.

**Socio-Economic:**

1. Perceived convenience of collecting water from a bore well / tap rather than a step well, which is the most common source of infection.
2. Demonstrable suffering motivates the community to follow the suggestions given by the health staff.
3. Interventions are simple and inexpensive.

| Impact of MDT on Leprosy Prevalence in AP | | |
|---|---|---|
| Technology | Year | Prevalence |
| Mono Therapy | '1961 | 13.3 |
| | '1982 | 12.6 |
| MDT | '1983 | 12.4 |
| | '1992 | 1.8 |




**Managerial:**

1. Easy case detection as management is obvious.
2. Limited size of the problem.
3. Synergistic priority setting by the panchayati raj department in terms of the rural water supply program. This priority is set not because of the guinea worm control program but because of the overall need to make available drinking water sources to the population.

## Leprosy:

Prevalence of leprosy has been brought down from 13.3 per 1000 in 1961 to 2.3/1000 in 1992. This is a remarkable degree of progress. The main factor towards successful control of leprosy has been technological breakthrough in the therapy.

**Sustainability issues:**

I. Adaptation of multi drug therapy (MDT) has been largely responsible for the success of the programme. Main advantages of the MDT technology are;

1. Finite period of treatment (6 months to 2 years) as opposed to very long term treatment required for dapsone mono therapy (>5 Yrs),
2. Reduced chances for development of bacterial resistance.
3. Better patient compliance evidenced by discharge rates exceeding 90%

II. The constraints experienced in the programme implementation include, non filling up of sanctioned posts (particularly the field posts), shortage of drugs as the German Leprosy Relief Organisation, which supplies drugs on behalf of government of India, could not supply them and shortage of vehicles.

III. The targets fixed under the programme are based on critelia like previous year's achievement, number of sanctioned staff etc. It is presumed that a PMW surveys a minimum population of about 5000 each year[17]. It is well known that the multi drug therapy, thrives on regular supply of drugs and adequate field staff who are mobile. Higher achievements in case detection well beyond targets fixed suggests two things, either the targets fixed are too low and or prevalence of the disease is much higher than the projected figures.

IV. A very high case discharge rate (> 98%) suggests good case holding there by indicating that the present multi drug approach is receiving better patient compliance.

V. Being a 100% centrally sponsored programme, sustainability of this programme is also linked to centre's support. However, in view of significant reduction in case load evidenced by decline in prevalence, this programme is likely to sustain when once made horizontal and linked to primary health care services.

Goitre Survey in Tribal Areas, 1986[1]

| District | Pop Surveyed | Cases | Prevalence % |
|---|---|---|---|
| Srikakulam | 2,000 | 252 | 12.6 |
| Vizianagaram | 2,000 | 184 | 9.2 |
| Vishakhapatnam | 16,654 | 5,775 | 34.68 |
| East Godavari | 38,179 | 24,595 | 64.42 |
| Khammam | 12,768 | 5,427 | 42.5 |
| Adilabad | 50,947 | 27,540 | 54.06 |

[1] Source: Directorate of Health, Government

## Some Failures

The goitre control programme is a classic case of failure. An indepth analysis of the programme indicate failures in all perceivable angles.

**Epidemiological:**

[17] National Leprosy Eradication Programme, National Health Programme Series 6, NIHFW 1989.

Failure to get a comprehensive understanding of the goitre prevalence as goitre surveys have been confined only to few areas only. For example in A.P., so far, only 6 districts have been covered. Even in these districts the studies have been confined only to tribal and hilly areas and comprehensive picture of goitre prevalence is not available. Since goitre cases are known to cluster in certain areas, appropriate sampling procedures need to be applied for undertaking goitre surveys.

**Socio-cultural:**

Indepth studies suggest that community never perceived goitre as a disease. Even the large goitres, being painless, are not considered as health hazard by the community. In fact appearance of goitre, which is more common during puberty, is considered by certain tribes as an indication to get the girl married. Since community failed to perceive goitre as a disease, it is much more difficult to convince them to accept iodised salt in place of conventional coarse salt. Failure of the government to supply the iodised salt at the same price of common salt is another important factor which acted as a deterrent to the programme.

**Administrative:**

In the absence of National Nutrition policy, the goitre control programme has to work in isolation. There is need for national goitre policy, strategy and plan of action. The programme objectives need to be specified precisely, clearly indicating the targets and time frame. In the absence of such indicators it is not possible to monitor/evaluate the activities of goitre cells. Thus, despite being included in new 20 point programme, the goitre control programme received poor attention by the state government. This is evident by the large number of vacancies yet to be filled up in the goitre cell. In addition, failure of government to strictly enforce the ban on sale of un fortified salt resulted in easy availability of normal salt at prices lower than iodised salt.

**Logistics:**

The salt production and distribution requires involvement of different administrative sectors such as industry, civil supplies, transport and health. Any weak link in this chain will adversely affect the programme. The primitive technology of salt production and processing results in excess moisture content and contamination of salt which effect the iodine content. The public sector unit is not able to produce adequate iodised salt mostly due to managerial problems. The potassium iodide required of fortification is not locally available and has to be imported. Lack of information and utilisation of good packing material (LDPE-lined jute bags) often resulted in rapid loss of iodine content. Finally lack of adequate covered transportation facilities and proper storage facilities have adversely affected the iodine content at consumer level.