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Health Care Services in Tribal Areas of Andhra Pradesh : A Public Policy Perspective

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Tribal development strategies need to be more human-centred with health at its centre. The conventional, bureaucratised approach of looking at health issues for tribals in a sectoral, compartmentalised manner can have little impact on achieving health goals. Strategies to reduce morbidities and mortality among tribals would need to contain specific directions for establishing interconnectivity between income, food security, female literacy and good health right down to the PHC level

The purpose of this paper is three-fold: (i) to highlight the need to formulate a health policy for tribals, which is related to the epidemiology and levels of social development. It is argued that strategies and approaches adopted for disease control in non-tribal areas cannot be automatically adopted in the tribal areas, which are characterised by dispersed populations, poor communications; acute poverty; low literacy; and social and cultural variations; (ii) to ensure that in tribal policy, central focus is accorded to the well-being and survival of the tribals. This would need drastic restructuring of not only mindsets but also the processes involved in policy-making and policy implementation. Integration of inputs, activities and interventions becomes the key instrument as opposed to fragmentation as a result of departmental approaches; and (iii) finally, it is believed that given the grim scenario of the financial health of the state now and in the near future, it is necessary that public policy be based on considerations of cost effectiveness and sustainability. Achieving better value for money and not higher spending, focusing on processes and not targeted outcomes, ensuring transparency in implementation through effective involvement of the community and the direct users so as to minimise leakages and ensuring better utilisation, etc, are issues that will need to be seriously addressed alongside securing higher budgets and financial allocations. The crises is not just "more money" but how to spend it in a manner that would help achieve programme goals. It is hoped that this paper will improve an understanding of these issues among policy-makers, academia and social activists so as to enable formulation of a qualitatively better public policy mix for the tribals.

The paper is divided into three parts: the fist part is descriptive, giving a brief overview of the health status of the tribals living in the scheduled areas of Andhra Pradesh; the second part provides a critique of the recent initiatives taken by the state government for providing better health care services in tribal areas with assistance from World Bank and IFAD; and the last part outlines briefly the thrust areas of the new paradigm.

Public policy for the welfare of tribals living in the scheduled areas of Andhra Pradesh was based on the belief that "the basic purpose of development is to enlarge people's choices ... to create an enabling environment for people to enjoy long, healthy and creative lives... that if economics expand but human lives shrivel, there can be very dangerous political and economic explosions". [1] Following the outbreak of Naxalite violence in the tribal belt of Srikakulam district in 1972, major initiatives for the development of tribals were introduced. Policy largely consisted of focusing on education and economic development of tribals with a view to shelter them from exploitation and increase their incomes for enabling them to enjoy a better quality of life. Since the First Five-Year Plan, an amount of Rs 894.18 crore has so far been spent in these scheduled areas by the tribal welfare department, with another Rs 100 crore [2] being mobilised from other departments. While there is no comparative data available to assess the extent to which these efforts have helped in the alleviation of poverty levels among tribals, it is believed that some among them would have benefited from the expansion of irrigation facilities, the introduction of cash cropping, increases in purchase price of minor forest produce and extension of agriculture credit facilities, etc. With the establishment of schools, literacy levels have gone up from 5.34 percent to 17.16 percent during the decade 1981-91.

Not withstanding the above, if quality of life is to be measured in terms of reducing premature mortality among children and women, or in terms of good health so as to live to ones' full potential, then the tribal policy falls short in not having been able to integrate health care in the overall development paradigm. To assume that increased incomes would automatically lead to healthier lives is not always true - the associated factors such as access to timely health care services, clean drinking water and sanitation, information and knowledge, have to also form a part of the package. In other words, enhancing of education and income levels become meaningful only when combined with these other inputs.

I Epidemiological Status in Tribal Areas

The tribal sub-plan areas is spread over nine districts and consists of about 33 tribes and22 lakh of the total 42 lakh ST population in the state. Available evidence suggests that poverty is the prime cause for ill health, persistent morbidity and early death. However, lack of access to right foods: iron, protein and micro-nutrients such as iodine and vitamins, is the principal cause for the very high incidence of nutritional deficiency diseases: anaemia, diarrhoea, nightblindness, goitre, etc. These factors combined with lack of access to basic health care services is the main reason for the unexceptionally adverse differentials with the more developed parts of the state: maternal mortality is eight per 1000, (going up to 25 among some tribal groups) as against four per 1000 for the state; infant mortality rate is 120-150 per 1000 compared to 72 per 1000, and while it is nine per 1000 crude death rate, with 30 percent under-five mortality for the state, among some of the major tribal groups such as Savaras, Gadabas and Jatapus, the death rate is as high as 15-20 per 1000 with over 50 percent of deaths of children under five. [3] Longevity of life is lower; there is evidence of a faster decline in the sex ratio during the decade 1981-91 and an unacceptably high level of about 75 percent stunting/wastage among children. Under TB and malaria, the tribals suffer disproportionately to their population - the rate of incidence of TB among tribals is estimated to be double and under malaria, case incidence is estimated to be over 18 per 1,000, mostly of the P Falciparum variety, accounting for 75 percent of the state's total deaths on account of malaria.

Basic Health Care Services In Tribal Areas

The Constitution mandates the state to provide basic health care to all its citizens. In keeping with the input oriented development model, essentially a supply side response to the problem, and the theory of the "trickle down" and "cascade" effect, provisioning of health care services was perceived to be a function of establishing health care institutions as per a population norm. The need for a "differential" approach for tribal areas was restricted to the setting of differential norms for establishing facilities and not in content or approach.

Accordingly, for every 3000 population a sub-centre (SC) was established and for every 20,000 population a primary health centre (PHC) as opposed to the norm of 5,000 and 30,000 respectively for the non-tribal areas. Accordingly, as on today, there are in the tribal areas, 111 PHCs (a four-fold increase from 32 during 1982) and 823 SCs, (an eight-fold increase from 108 during 1982) along with 29

mobile medical units (MMU), 21 hospitals and 18 dispensaries. Thus, against one PHC for every 40,000 population in the plains areas, there is one for every 7,772. Likewise, for every 7,000 persons one sub-centre in the non-tribal areas, there is one for every 1,251.There are an estimated 277 doctors, 1,720 health workers and 260 health supervisors working in the tribal areas.

In reality, however, the positive aspects of this impressive spread of infrastructure has got negated by the highly dispersed nature of the populations. The PHCs and sub-centres have been so located that the distances to be covered (in these areas this means by foot) average about 272 kms and 37 kms with the highest going up to 465 and 50 kms respectively. Similarly, the average number of villages/habitations that have to be covered by a PHC and a sub-centre are about 73 and 10, with a high of 1,461 and 379 respectively. Thus, though manpower availability purely in terms of ratios do not seem to be adverse, the siting of the facilities, and poor communications, has resulted in making distance and physical access a major barrier for the utilisation of health care services.

Likewise, as per a detailed survey of the facilities established in the tribal areas, undertaken by the department of family welfare during 1994-95, none of the 29 MMUs are functioning, [4] 66 percent of the PHCs require repairs to make them usable, 30 percent have no electricity (affecting vaccine potency), 62 percent have no labour rooms or water supply (making institutional deliveries impossible), and 19 percent are located in thatched buts, one-roomed buildings, sheds, etc, forcing the large number of the 16 staff members to be at home. While 80 percent PHCs have no BP apparatus, virtually none have any weighing machines or blood testing equipment, making ante-natal check ups only notional. 53 percent PHCs have no operation theatre and of the remaining, in 22 percent the theatres have no equipments and therefore are unutilised.

In the case of sub-centres, which are a 100 percent centrally funded programme, 87 percent are in rented accomodation, which in tribal areas would only mean a portion of a thatched hut. Even in the remaining 13 percent sub-centres, 50 percent require major repairs and are unoccupied. While 8 percent of the remaining 50 percent have some facilities such as examination table, etc, only 1 percent have water facility and 6 percent electricity. Based on these findings one can quite safely assume that by and large the sub-centres are non-functioning and only a statistic - the odd ones being those which are located on the roadside villages/growth centres, etc.

As for manpower availability - the vacancies among doctors is an average 26 percent with the highest of 60 per cent in Adilabad; 20 per cent among male health workers and 26 percent among female health workers. Given the distances, vacancies mean virtual non-coverage of the populations with health care services. An important statistic is that against 824 male health workers that ought to be available, the sanctioned posts itself are 690. As male health workers are the key to malaria control programmes, their non-availability in 40 percent of the sub-centres, (on account of vacancies and non-sanction of posts), has resulted in the virtual non-implementation of this most important programme in most of the tribal areas.

Lack of accommodation, poor infrastructure, large-scale absenteeism and vacancies, poorly trained and unmotivated manpower, are thus the reasons for the near absence of health care services. The 30-bed hospital at Paderu, ITDA headquarters of Visakhapatnam district, having no patients, since its construction five years ago, typifies the state of health care services in the tribal areas. 'Peoples' Perceptions of Health Services' discussions with tribal communities in over a dozen villages brought forth some important insights regarding their perceptions of the existing health care system in the public sector: that the system is virtually non-functioning, even when endowed with all inputs; the treatment in the PHCs is unsympathetic and casual, if not hostile and exploitative; there is a serious crisis of credibility as, irrespective of the illness or complaint, the same medicines are administered - two white and one red - because of which most confessed to throwing them away; inconvenient timings and uncertainty - after a 10 km walk, which is the case with most villages, they normally find the PHC "closed", necessitating additional costs for the overnight stay, compounded further with high transaction costs - extortion by staff, "check up" by a worker or the pharmacist on account of the absence of the doctor; non-availability of inpatient facilities, forcing them to make their own arrangements for stay at the houses of relatives, the local headman, etc.

Unable to afford being sick for long, the tribals find it less expensive to seek private care, which has a measure of certainty, prompt service, better quality of medicines, and in some cases, such as Mission hospitals availability of inpatient facilities for treating fevers, minor surgeries, etc. In a majority of cases the pattern of health seeking behaviour ranges from obtaining early relief at affordable rates - Rs 2 per tablet, Rs 5 for consultancy and Rs 10 for an injection, to treatments entailing minor accident cases, surgeries, pregnancies, etc, necessitating, outlays going up to about Rs 1,000 at a time. Referrals for anything beyond, i.e. to the district hospital or the district TB centre necessitating any high cost diagnostics/treatment and incidental expenditures are out of reach. In such cases, most leave the outcomes to time and fate, leading one to believe that

tribals are fatalistic or ignorant. This assumption is borne out by a baseline survey conducted in 12 roadside villages of Maredumilli tribal area of East Godavari district. As per this study it emerge that among the 405 households interviewed, there were 420 morbities observed. Of these 420, only 279 were treated and 95 cured. [5]

Role of Private Sector: It is normally assumed that the non-functioning of the public health system would result in the proliferation of the private sector. This has not happened. Low incomes resulting in low ability to spending on health care is the main reason for the poorly developed private sector in the tribal areas. Private care in the tribal areas consists of a few qualified practitioners, some quacks and government health workers by and large concentrated in the relatively better developed areas. Most of the unqualified practitioners practice aggressive medication, prescribing a range of antibiotics and resort to placebos. Pre-scriptions are normally not issued, on the plea that there are cases of self-medication among tribals. For any minor surgeries or complications, people travel 60 to 100 km distance.

Cost of Ill Health: The failure of government institutions to provide effective health care services is the main reason for the huge out-of-pocket expenses being incurred by the tribals on purchasing basic health care services from the private market - a minimum of almost Rs 200 per episode of illness - towards transport, professional fees, drugs and tests. Given the frequency with which illnesses and fevers occur in tribal areas, it is realistic to assume that spending by a family per year on health care may range between Rs 1,000-2,000. This would amount to over 20 percent of the income, going by the 1990 study of expenditure patterns of tribals conducted by the Tribal Cultural, Research and Training institute for the IFAD, which established an average expenditure/consumption of Rs 4.327 per family per annum. [6] The money required for health care is raised by taking loans at high rates of interest ranging from 5 to 10 percent per month and on condition of preferential sale of the produce at 70 percent of the prevailing market rate. If these indirect costs, including the opportunity costs of wages lost on account of absence from work or reduced productivity are computed, the amounts spent on basic health care would be significantly higher.

The cycle between hunger - disease - low levels of productivity, (measured both in terms of absence from work as well as duration) - low wages - indebtedness - reduced consumption levels - disease, is reflective of how the development process has, largely, bypassed the tribals. With evidence of increasing landlessness among the tribal populations compared to 1981, [7] the doubling of prices of most essential commodities - kerosene, oil, salt, matchboxes, etc -

during the last three years and inability to take full advantage of the increase in the market prices for their produce, for a majority of the tribals illness has serious economic consequences on their fragile incomes. Thus, on account of the poorly developed market, it is imperative for government to shoulder the responsibility of providing a package of health care services that would provide early cure to malaria, TB and respiratory illnesses, gastrointestinal problems, mother and child health cart services, fevers, health and nutrition education. Such a package does not need high investments in equipment's and buildings but requires a well trained and motivated health personnel provided with basis facilities. Only such a system would make the health system accessible, affordable and need based.

II Public Policy for Health Care of Tribals

Centralised top-down planning an inability of the tribals to articulate their need for health care services, are the two reasons for an ambivalent public policy - ranging as it did, from establishing PHCs and sub-centres; conducting health camps on a sporadic basis (with no follow up mechanisms); providing additional funds for purchase of drugs, fuel for vehicles or constructing buildings for strengthening of infrastructure; to reducing the minimum qualification of ANMs for providing employment opportunities to tribal girls. In 1992, in response to the deterioration of the health conditions among tribals, the government came up with a one line tribal health plan consisting of recruiting 250 medical doctors to fill up the existing vacancies. Even this got implemented only four years later in 1996.

Recently, a tribal health project (THP) was prepared for Rs 14.06 crore by the department of tribal welfare, being funded by the World Bank and the International Fund for Agriculture Development, Rome, to be implemented in the four districts of East Godavari, Srikakulam, Visakhapatnam and Vizianagaram, consisting of 7.87 lakh population. Under the project, activities for the strengthening of infrastructure-building construction, additional budget for drugs, vehicles and supplies; training of all health care providers; strengthening of diagnostic facilities; and constitution of women health committees with a community health worker (CHW) in every village, (uncovered by an anganwadi centre) are proposed to be taken up. Though the project objectives provide for a package of services, outcomes are confined to achieving reduction in morbidity and mortality, particularly on account of nutritional deficiencies, only among mothers and children.

The positive aspect of the THP is that, for the first time, some focus and attention has been accorded to providing health care services, an important aspect of tribal reality and development need. An attempt has been made to build on the concept of people's participation. The strategy seeks to anchor itself on the strengths of tribal life, namely, community homogeneity. This commmunity approach is proposed to be achieved in two ways - (a) providing for a CHW, a married woman, not necessarily literate, resident of the village, to provide "prevention and curative services at the village level and as liason between community and the Medical officer of the PHC" for which Rs 300 per month honorarium and two months of training is proposed to be provided in the treatment of malaria, scabies, diarrheoa, ARI, fever, preparation of nutrition charts and undertaking of health education activities; and (b) constitution of village health committees (similar to the swasthya sanghs) responsible for a range of activities covering MCH, environmental health, health education, reproductive tract infection control, identification of communicable diseases and mental health. The role would be identification, limited medication, referral, etc, up and administering the village fund fox for undertaking drinking water, sanitation and construction/maintenance of labour room facilities.

For generating awareness so as to improve the utilisation levels of the services being provided, the IEC strategy consists of conducting two jatras per year in every PHC "where tribals can be exposed to a lot of information".

Accordingly, for strengthening of 324SCs and 37 PHCs an amount of Rs 571.81 lakh (40.8 percent), additional budget for drugs Rs 56 lakh (4 percent), health education and monitoring Rs 60 lakh (4.27 percent), training Rs 205.5 lakh (14.32 percent) community health fund (for 5 years) Rs 435.5 lakh (31 percent) and incidentals Rs 86.5 lakh (6.17 percent) has been provided for. This is over and above an estimated amount of about Rs 3 crore being spent by the department of health every year.

A Critique of the Tribal Health Plan

If financial allocations are indicative of policy intention, then it becomes clear that neither has adequate attention been paid to past experience nor full use made of the new insights gained from the facility survey. The THP, like most plan documents is full of sound bytes - a statement of good intentions which, in the absence of a carefully worked out and tightly knit health delivery system, set within an integrated development framework will be a lot of effort with little utility.

A serious shortcoming of the health policy for tribals is the reiteration of the routine compartmentalised approach. Besides not attempting the implementation of the national policy of having a multi-purpose, integrated health care delivery system at the primary level, the policy does not even deal adequately with the issues related to mother and child health care services. Despite evidence of the adverse impact malaria has in exacerbating aneamia, or, the finding that 20 percent of infertility or high incidence of mortality of women in the productive age group is due to TB, the implementation of these programmes have not been incorporated.

In view of the strong association of TB, malaria, AIDS, STD to reproductive health, the policy framework falls short in not assessing the operational inadequacies for improving the programme implementation .of these public health programmes - for example, data shows that most malarial deaths are on account of delayed treatment. The average time taken in tribal areas for a blood slide to be examined and results informed is six weeks to six months. On account of inadequate budgets for travel allowances, workers tend to wait for 10-15 days till enough number of slides are collected before handing them in for testing by when the slides get spoilt and fixed.

Likewise, the existing system of TB treatment requires patients to visit the district hospital, which on an average could be about 200 kms away, obtain a referral and keep visiting the PHC for medication - a system that has been found to be expensive, time consuming and clearly unaffordable resulting in a significant increase in drop-out rates. Or worse still, on account of late release of budgets and sporadic supply drug resistance is on the increase. These are realities that need to be captured for reducing morbidity and mortality levels.

A fractured and segmented approach apart, the current policy as reflected in the action plan has inadequately addressed three important barriers: (a) physical access, (h) quality of care and (c) information.

Access: Physical access to health care centres is a critical issue necessitating immediate correction, failing which the investments proposed for providing equipment's, drugs, etc, would be infructous. Siting and relocationing of the centres would require setting of norms based on micro planning exercises that would help identify existing resources and assess available options based on practicality, preference and cost: for example, a partnership with an NGO or an existing private practitioner so as to avoid duplication; or, provisioning of an all weather road with bus connections to an existing facility as a more cost effective

means of opening up an underserved, interior, area than opening a new centre; a critical examination of the interventions in real and actual terms for effecting better economics and utilising resultant savings for critical inputs such as the mini operation theatre, labour room, a small bloodbank, a laboratory, etc, at nodal points, to be managed, if necessary by missionaries or private agencies who are able to motivate better compliance among physicians and health staff, etc.

More importantly, there is need to re-examine the efficacy of the existing three-tier health structure, which are a high cost option in tribal areas. The utility of the sub-centre (not the ANM but the institution) and the PHC need to be carefully scrutinised in terms of the services these institutions deliver to the community in actual and real terms. For example: for normal deliveries, post- natal check ups, immunisation, treatment for diarrhoea, malaria or TB the role of the sub-centre is negligible and a limited one for the PHC. This issue merits discussion since, for routine care, treatment can be domiciliary, and in serious cases, it would compulsorily require inpatient treatment in a hospital. Therefore, the huge costs proposed for the establishment of sub-centres (building cost being about Rs 4 lakh) and some inadequately endowed PHCs (cost of PHC building about Rs 50 lakh) needs to be assessed strictly in terms of utility. Given the high capital costs of about Rs 4.5 crore, a reassessment and change of strategy would be prudent and result in better use of money.

Likewise, deployment of manpower should also be need based. The utility, cost effectiveness and sustainability of locating a medical doctor, trained at an average estimated cost of Rs 4.5 lakh, in remote areas, without facilities and adequate patient load, needs to be carefully re-examined in relation to other available options such as better trained health workers, midwives, etc.

Quality of care : There are two critical factors effecting quality of care - (i) chronic underfunding resulting in enormous wastage and high unit costs on account of low utilisation of the infrastructure: and (ii) poorly trained manpower.

It is observed that sub-optimal utilisation of available facilities due to inadequate recurring budgets, has resulted in the pushing up of the unit costs of services. While drivers' salaries are paid, the vehicles remain unused for want of funds for regular maintenance and POL. Or, frequent breakdowns of equipments for want of timely servicing or lack of funds for purchase of consumables -glass slides, spirit, biocularscopes, reagents, etc. add to infructous expenditures being incurred month after month as no allopathy physician can provide any treatment without basic diagnostics. Likewise, amounts provided for drugs are low. Taking inflation into account the real value would be lower and just about adequate for

the "two white and one red tablet". In addition, even these drugs, given loose tend to get soggy on account of poor handling by the patient rendering them useless. Therefore, keeping the practical problems in view, a policy on drugs procurement and utilisation, based on the prevailing epidemiological profile, needs to be clearly spelt out and provided for, instead of lumpsum allocation of funds, which may be administratively convenient, but not help achieve the stated goals.

With additional funding support under the tribal project, the total amount that would be available at a PHC is Rs 2.20 lakh per year, which comes to about Rs 11 per capita. This amount is pitifully low and hardly enough to effectively meet the drug requirements of even the TB cases. It is therefore, necessary to be clear of the goals that can be achieved and list out the amounts required for treating those disabilities, since underfunding can only add to the overall question of credibility. Careful analysis for evolving systems of social insurance through household savings could be one way of having a part of the costs provided for and build in sustainability.

It is not enough to merely establish facilities - of greater importance is the placement of adequately trained manpower. What the tribal areas need are not postgraduate specialists but someone who can diagnose simple ailments, conduct a safe delivery administer cost effective remedies which are within easy reach of the tribals.

An implicit acceptance of the above is critical to the success of any intervention proposed by the government. While at one end of the scale are the ANMs who were as per a survey, found unable to use the blood pressure equipment, at the other end, are doctors with little motivation to work in the tribal areas. Therefore, training in skills, clinical psychology and issues related to behavioural sciences, for inculcating a sense of responsibility and a more caring attitude towards the patients, etc, are critical to the achievement of health goals, as the absence of such attitudes among the is one of the major barriers effecting utilisation levels.

Besides, such training has assumed added importance in view of the recruitment procedures which give greater weight age to seniority to the year of passing rather than merit. In addition to having lost touch with the subject, many of the new recruits being middle aged with several personal concerns and a fixed mindset also lack the motivation required to work in the tough terrain of the tribal areas. Besides, these new recruits have been appointed conditional to service in tribal areas for a continuous period of five years-a specialist, or a

"good" clinician with a settled practice in the urban areas, is bound to get a professional setback, forcing deviant behaviour such as frequent absenteeism, non-residence, etc. Therefor at times, uninspiring and unmotivated leadership and ineptitude of the medical officer is seen to be a main cause for the ineffective functioning of the PHC. These issues need to be grappled with and strategies evolved to bring about shifts from doctor-centred approach.

The biggest challenge faced in the area of training is getting good trainers, necessitating co-option of retired nurses, NG0s, etc, since training needs to focus on individual capacity building, development of skills, attitudes and coping strategies. The methodology of training is as critical as the content. Experience gained in the implementation of the IPP VI training project and the child survival and safe motherhood project could be good starting points to evolve a need-based and relevant training methodology.

Information demand generation: Campaigns are the most expensive mode of health education and information dissemination. Several studies conducted by the ministry of health and family welfare, government of India have demonstrated the limited impact, in terms of recall, of over-supply of information. These lessons are of value for tribal areas, given the sharp differences in cultural ethos, levels of understanding, language, and abysmal illiteracy - female literacy is 6.86 percent among ST (rural) [8] and among 25 percent of the population in these four project districts, it is less than 2 percent. If two jatras per PHC could bring about the required level of demand generation, which subsumes a change in attitudes and behaviours, there ought to be no plague, dengue, malaria and cholera epidemics breaking out in this day and age.

Therefore, of concern is the absence of a creative strategy for information dissemination. The amounts provided for training and IEC are pitifully low, despite the realisation that it is lack of critical skills, knowledge gaps and poor motivation among the providers, and ignorance and non-familiarity with an alien system of medicine among the tribals that are the structural barriers plaguing the delivery system.

Communication strategies in tribal areas need to be embedded on the tribal way of life and thinking. My experience reveals that one cannot have a linear conversation on a subject with the tribals - it needs to meander, for the tribals take time to respond. In such a situation, a communication strategy must consider provisioning of information in small doses, set in a participative manner and seek to bring about behavioural changes over a period of time, in measured

steps. The basic problem at the implementation level is the finding of trainers and development of training materials, which requires a kind of expertise that is not available in the state and needs to be developed.

In the tribal context, bridging information gaps is not a question of conducting campaigns -jatras, posters and health camps - what is needed, as in Thailand, is a flexible approach suited to the area and based on the recognition of the fact that the assiduous promotion of preventive strategies is far cheaper than curing disease. In other words, avoiding disease and development of "a culture of prevention" as was done in "killing the flies" campaign in the mid-1950s and 1960s China, would be a more cost effective means of disease control. But then this requires a significant investment in public health education containing a limited number of messages, focusing on the consumption of nutritious foods and clean water. It means integration of land use policies with health education subsidies and training, the growing of mango or papaya, rich sources of vitamin A, or facilitating the community to earmark land for growing green leafy vegetables and other iron rich foods, etc.

III Need for a New Paradigm

Examined from the perspective of quality of life indicators, tribal development strategies will need to be more human-centred. This means bringing about a shift in the mindset and a redefinition of the word 'development'; or measuring development by looking at outcomes such as the number of children or women saved from premature death; increasing literacy levels, reducing drop-outs and increasing retention in schools, etc. as contrary to focusing only on number of silveroak trees planted or coffee produced, houses constructed or buffalos distributed. This means having an agenda that consists of provisioning of basic education, basic health care and capacity building within the framework of a stable and sustainable land use policy: where there is a basic inter- linkage of the individual activities. It also means better targetting so as to ensure an equitable development process, since the intra-tribal differentials are a major area of concern.

The development paradigm will need to make health centre stage in the overall development strategy. "Incomes depend exclusively on physical labour and have no savings to cushion the blow ... It is impossible to recover with their human and financial capital intact". Therefore, any strategy for the development of tribals will need to not only protect income flows, particularly during the lean periods, but also realise that "investments to reduce health risks among the poor

and provision of insurance against catastrophic health care costs are important elements for reducing poverty". [9] As indicated in the WDR, 1993, a survey of 22 low-income countries demonstrated that an increase of income by one dollar per day showed 30 percent increase in life expectancy. Another survey of 58 countries showed that a 10 percent improvement in incomes resulted in 2 to 3.5 percent reduction in infant mortality and an increase in life expectancy by one month. Similar is the causal relationship female literacy has to health - a 10 percent increase in literacy of women resulted in a 10 percent reduction in childhood mortality. It is stated that in India one year of additional schooling will bring down two maternal deaths and 45 infant deaths. In view of this structural inter-connectivity between income, food security, female literacy and good health, the conventional, bureaucratised approach of looking at health issues for tribals in a sectoral, compartmentalised manner can have little impact on achieving health goals. Accordingly, strategies to reduce morbidities and mortality among tribals would need to contain specific directions for establishing this interconnectivity between improving incomes to female literacy and better utilisation of health services at the PHC level based on micro-planning.

The allocative issues within the health budget are critical for determining the quality of care. The WDR "Investing in Health" 1993, argued for low income countries such as India, to consider utilising available resources on provisioning of basic health services that, in the Indian context would consist of MCH services, treatment for TB, malaria, STDs, minor surgeries, trauma care and health education for preventive and promotive health care. It was estimated that such a package may require a per capita investment of 12 dollar or Rs 384. Against this, as per the NCAER [10] study, expenditure being incurred for basic health care services being provided in the rural areas is less than one dollar being only Rs 30.22 per capita, of which, 75 percent are spent on salaries and only 12 percent on drugs at the rate of Rs 5 per capita per year. In view of the financial crisis, increases in budgetary outlays would be increasingly difficult, as witnessed in this years budget.

It is in the context of affordability that more cost-effective systems of health care need to be urgently examined. The indiscriminate propagation of modern medicine and high tech diagnostics through the proliferation of health centres and physicians trained in western medicine with treatment protocols that require repeated visits, etc, could be ruinous and unaffordable for the tribals. In China, where initial focus was to provide basic health care, cost effective options were adopted that broadly consisted of, educated youth, selected and paid for by the commune, provided six to nine months training in basic care and backed by small, neat and functional hospitals. The "bare foot" doctors were not only trained in anatomy and symptoms, cure of simple ailments, but also in

traditional medicine, which was found to be acceptable, and proved over time, to be efficacious, affordable and easily acceptable. In India, the blind adoption of the high cost western medicine system has resulted in the danger of destroying our own strengths, without having the money to sustain this new technology. In tribal areas, the Girijan Co-operative Corporation and the department of ayurveda have done commendable work in listing and identification of herbal medicinal plants - this research work should be fully utilised and exploited for the benefit of the tribals, as herbal medicine is acceptable, affordable, accessible and most importantly found to be capable of curing several ailments such as malaria fevers, STDs, etc, very effectively. Such an integration of systems of traditional medicine - nature cure, herbal cure, ayurveda, etc, which are less dependent on the MBBS doctor and more familiar to the tribals needs to be consciously built into the package. But then the establishment of such a health system would require massive re-training of the health providers in integrated medicine.

Among the tribals, it is not only necessary for improving awareness but more importantly, carefully bringing about attitudinal development and behavioural changes for the promotion of good health values. Focus would need to be on interpersonal communication and training of community based organisations - mother groups, the village development societies. Training would need to be not on health alone but related to empowerment of the community with the knowledge and understanding of interconnections between seemingly different activities, for example, linking of health goals to economic activities such as land use and development or implementation of employment generation programmes. Such a connection would imply that in the selection of works, priority is accorded to those that have health outcomes such as the filling up of low lying areas that function as breeding grounds for mosquitoes, clean drinking water and drainage, construction of a labour room/ICDS centre-school, metalling of the critical road connecting the village to the health facility, taking up the plantation of fruit and health value trees such as neem, tamarind, etc. Such a co-ordinated approach between health and water mission teams in Rajasthan resulted in the virtual eradication of the incidence of guinea worm.

Similarly, promotion of education per se is not half as valuable as when it is based on the understanding that promotion of female literacy has a direct correlation to good health. Given scarce resources focus would need to be on the 12-20 year age group, an age group that would not only be more responsive but also critical one to achieving MCH goals. The challenge is in developing suitable learning materials in the tribal dialects and idioms for better acceptability.

Given the fact that the policy designer and implementor in tribal areas is the Integrated Tribal Development Agency, it should be administratively and conceptually easier to provide a truly tribal centred framework instead of the existing physician led strategy that has so miserably failed to provide basic health care in the country.

Tribals are the poorest of the poor. The state's inability to provide a credible and feasible health care system that is accessible and affordable is indicative of the system failure in an important area of concern. Wisdom lies in learning lessons and having courage to get out of given formats and mindsets. The rigidities and inadequate understanding of the issues involved on the part of policy-makers is the cause of poor policy. Even while tribal areas are the biggest challenge and most difficult to handle, unfortunately, experimentation is most in this area. So long as policy is "building and doctor oriented" there is little hope of any substantial improvement in the health status of the tribals. But then in the kind of planning process we have in the country, how do people get onto the agenda? How does policy become people oriented and be insulated from the influences of various interest groups - contractors, physicians, pharmaceutical industry, bureaucrats, foreign donors? Till an answer is found to these questions, this bungling will continue and the tribals will have to continue to pay the price.

Notes

1. Mahbub ul Haq. 'Development Programming for South Asia'.

2. Directorate of Tribal Welfare, Government of Andhra Pradesh.

3. Unpublished monographs of TCRTI, Government of Andhra Pradesh.

4. An Approach of Plan, 1995, Department of Tribal Welfare, Government of Andhra Pradesh.

5. M Dharma Rao 'Baseline Survey of Maredimilli PHC', SIHFW, 1996.

6. TERTI: Departmental Study undertaken for IFAD, 1991.

7. K Mohan Rao, 'Towards Empowerment of Tribal Women', TERTI, 1995.

8. TERTI, 1995.

9. World Development Report, World Bank, 1993.

10. NCAER. 'Survey of Primary Health Care, 1993'.

References

1. Baseline Survey Conducted at Maredumilli PHC of RampaChodayamm ITDA of East Godavari District, 1996.

2. NCAER (1991): Household Survey of Medical Care.

3. - (1992): Rural Household Health Care Needs and Availability.

4. - (1994): Survey of Primary Health Care.

5. National Institute of Rural Development (1990): Levels of Living and Poverty among Social Groups in AP: A Cross-Sectional Analysis, Hyderabad.

6. Rao, K Mohan et al (1990): Shifting Cultivation in the Northern Coastal Area of AP, Tribal Cultural Research and Training Institute, T W Department, Government of Andhra Pradesh.

7. Rao, K Mohan (1996): Towards Empowerment of Tribal Women, TCRTI, Hyderabad.

8. State Five Year Plan Documents.

9. Tribal Welfare Department (1995): An Approach to Tribal Health Plan. Government of Andhra Pradesh, Hyderabad, December.

10. - (1995): 'Infrastructure Facilities in Sub Plan Area of AP', (unpublished), Hyderabad.

11. ul Haq, Mahbub (1995): 'Human Development Paradigm for South Asia' D T Lakdawala Memorial Lecture, February.

12. World Development Report (1993): Investing In Health.