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Women Doctors

The article on 'Educating Women Doctors' (VoII:4, 1996) was interesting. But I wish there had been more information on the kind of students who apply for admission to these course at Ahfad University in Sudan. Does the university for instance, allow say, nursing graduates to take up medical education? What social strata do students come from?

Chennai — Radhika S P

WHO Conference on WTO

The WHO has sponsored an electronic conference which began in February to examine the possible effects of WTO rules on the production and commercialisatin of medicines in developing countries. The conference is an interactive process aimed at providing WHO with expert guidance on how to deal with the complex issues emerging from the implementatin of the international agreements following the Uruguay Round and the setting up of WTO in January 1995. The participants are a select group of academics and experts working with NGOs. The conference ends on April 20 1998.

Geneva — A Reader

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Multiple Meanings, Plural Systems

The survival of medical pluralism, notwithstanding decades of discouragement should prompt serious introspection on the relevance of the medical model of health care.

ILLNESS is, conventional medical sociology would have it, an escape. The constructive approach to illness would therefore be to push, prod and prompt the patient to move back into the everyday world from which s/he had sought escape. However in a consumerist society it also becomes necessary to keep an ill person from feeling well too quickly. For, after all, the ill state provides the impetus for a market for medicare and its products. In many developing countries traditional perceptions of illness and health form yet another point of reference. In consequence perceptions of health vary sharply across regions and communities, even as they do across gender, caste and class. This has also meant that studies attempting to capture morbidity in a population begin with a variety of handicaps. The assessment of health seeking behaviour is therefore fraught with uncertainty. This is part of the reason why morbidity studies have either relied on hospital data or have got bogged down in rather esoteric anthropological inquiries.

Only recently have researchers attempted to grapple with these problems in order to obtain an understanding and not just a quantitative picture of disease in a community. This has required the innovative and creative use of anthorpological and statistical methods and is yielding rich information. A recent illustration of this is a study sponsored by the district level administration of the malaria programme in Gujarat which has recently sought the help of social scientists to enquire systematically, for perhaps the first time, how people perceive malaria. The project was originally intended to inquire into the success of the impregnated bed nets in the malaria control programme. But the social scientists in this quest have found not answers but many many, questions.

The study has been yielding uneblievably rich anthropological and ethnographic data on how people respond to the disease, how they device the most 'cost effective' way of dealing with it, and also on how modernisation in all its forms is affecting health status and the very understanding of health in communities in fundamental ways.

For decades, health planners have happily laboured under the assumption that rural and even more so tribal and deprived communities know nothing about taking care of health; that their

coping and caring methods and remedies are 'unscientific' and are therefore inefficacious, and if the carefully designed interventions for disease control fail, it is because of the ignorance of the people. and so on. This study challenges some of these assumptions. confronting health planners with something of a dilemma. Within the monolithic structure of the centrally defined malaria control programme how is this new and confusing information to be accomodated?

For instance, the study in Surat district reveals that the impregnated bed nets are thoroughly useless and unacceptable. And this is not because the villagers are ignorant of its purpose, but simply because as one participant put it," people have no beds ", nor for that matter do the sleeping arrangements in these communities lend themselves to the use of bed nets. The study which focussed on three typical areas representing three ecological zones in the district, shows that sleeping arrangements are quite complicated and depend on work divisions within the family and also other familial and hierarchical needs. Similarly, the study also found that the spraying of pesticides which required that the area be left unused for several hours were not particularly welcomed, no matter how efficacious. Interestingly in most communities, people use a mix of modern and local, traditional methods to cope with disease, such as the practice of burning of wood to keep away mosquitos, of covering the body in neem oil in the night, etc. They also use a multiple system approach to cope with malaria – using the PHC, the private practitioners in allopathic and indigenous systems as well as the local folk healer or herbalist. In short what is evident is that medical pluralism is flourishing and has not as was once expected vanished. In fact, folk healers, since they themselves go to PHCs and other doctors, have picked up and incorporated modern ideas, techniques and remedies into their practice, however haphazardly. As participants who had worked in Tanzania pointed out, this was true also in other parts of the third world.

Should these 'systems' and their practitioners be integrated into the health system? Or, given the failure of early attempts to integrate indigenous systems into a uniform health service,should they be allowed continue to practice as they have done so far? Even more troublesome are questions of whether people should be allowed to define their own health priorities and what if one region or village decided that malaria was not their top priority?

These are undoubtedly difficult and confusing times for the health bureaucracy, health planners and for researchers, especially those who want to respond to the new demands and needs. Clearly rigidities have little place. But on the other hand, opening the debate

will clearly put the entire structure of current health care in jeopardy. Old questions such as whether there should be vertical disease control programmes at all or whether an efficient and well-funded primary health institution can take care of all needs are being reopened.

Perhaps the most important insight studies such as the Surat one provide is that medical pluaralism has strong roots. The very fact that systems other than the codified and acknowledged systems of medicine have survived should prompt introspection on the part of practitioners of western medicine on the limitations of the medical model of health care. Further, and quite emphatically, studies such as these show the need to impart greater flexibility in the new health policies and programmes to accomodate people's voices in the planning process.

–Padma Prakash

A Different Ethos

Existing health programmes in tribal areas fail to address the real problems among these populations.

FOR decades the government has had on its books a separate programme for tribal health, with the aim of providing special care to a vulnerable population. Over a period of time the programmes under this plan have shrunk or expanded depending on funds made available through various agencies, which have little relation to the needs of the tribal population. Not surprisingly, the programme ostensibly aims to provide additonal support for services in the tribal areas; it is not conceptually any different from health care facilities elsewhere. Because of this they have, by and large, failed to address the health needs of the tribal population. For one, most of the programme is on paper and tribal areas are undrserviced. Even when there are services, they are badly utilised. This is because often modern medicine and its requirements are completely out of the communties' ken.

Significantly, the state of health of indigenous people everywhere is a cause for concern – in Australia, in North and South America, for example. There is now a growing awareness in Australia today that their health needs have to be addressed differently. Now, after thousands of years of European colonisation, the indigenous population or aborigines who comprise 2 per cent of the population are enjoying the benefits of innovative health programmes. Indigenous

populations it has to be remembered are not always and altogether clustered away from the mainstream of civilisation, many have over the decades moved into urban areas , and have occasionally been assimilated into the population though the process itself has produced stresses. Moreover,the assimilation has often meant a low social status in mainstream society. Often they suffer from the same diseases as the rest of the population.

In recent years Australian health programmes for aborigines have become "collaborative not paternalistic" comments a note in *The Lancet*, an outlook that is being introduced into the training programmes of medical students as well. Such a programme does not merely expand health services for tribal populations, but actually changes it to suit the requirements of these populations in terms of concepts of illness and care.

In India the health indices of tribal populations tell a story of woeful neglect coupled with extreme poverty and exploitation. If the state health system is to address their needs, then the tribal sub-plan needs to be reviewed and restructured quite differently from the health programmes for the mainstream.

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–Editors

The Failures of Success?

Tamil Nadu's Recent Demographic Experience

Padmini Swaminathan

Tamil Nadu has had an active, but cooperative family planning programme, and it could use for this purpose a comparative good position in terms of social achievements within India. Coercion of the type employed in China has not been used either in Tamil Nadu or in Kerala and both have achieved much faster declines in fertility than China has achieved since it introduced the 'one child policy' and the related measures.

As neither the economic standards nor the literacy level of Tamil Nadu nor its employment potential for females were much higher than most of the other states in Southern India, the comparatively high age of marriage and easier acceptance of the concepts of family planning has to be ascribed to a strong social awareness programme created by a great social reformer named 'Periyar' Ramaswamy. Long before governments introduced the family planning programme, Periyar emphasised the need 'to liberate women from frequent delivery by use of contraception'. Also 'not to allow marriage of a woman before she is 22', so that '3 to 4 births can be averted' and to explain the desirability of the two child norm at every marriage', etc. Periyar's doctrines had a strong impact on successive political governments in the state, as some of his disciples later became political chiefs of the state – (T V Antony, former Chief Secretary to Tamil Nadu Government, and member, Expert Group, Draft National Population Policy.)

At least two factors have contributed to Tamil Nadu's success, namely, strong social and political commitment and good administrative back-up. Ashish Bose, member, Expert Group, Draft National Population Policy.

I

THE demographic 'success' of Tamil Nadu as evidenced by the perceptible decline in its fertility rates (including in the rural areas) during the decade of the 1980s has left everyone gasping for explanations. Predictably, the state government has gone overboard in attributing this 'achievement' to the effectiveness and efficacy of its official bureaucracy in 'successfully' implementing a fertility regulation programme. Worse, Tamil Nadu has become a model for the high fertility states of the country: the protagonists supporting direct birth control measures now argue that

these states need not wait for development to bring about fertility decline. The fact that, Tamil Nadu, despite not enjoying the economic standards of most other states and/or the historical advantages of Kerala, could make commendable demographic progress is proof enough that family planning can do the job single-handed. The contradictions of an historically continuous decline in sex ratio in Tamil Nadu, the still prevalent but relatively recent practice of female infanticide in certain pockets, and the rising incidence of other forms of violence against women in the land of EVR, are not the kind of issues that engage family planning officials and/or demograhers who single-mindedly pursue a one-point fertility reduction programme.

Others like A Sen have proffered a more sophisticated explanation. By emphasising the centrality of a basic relationship between women's well-being and their agency, Sen argues that the "reach of that agency can be very extensive indeed and it does of course *inter alia* include the possibility of reasoned decisions about fertility."[1] Sen singles out Tamil Nadu for its commendable performance; but it is not clear on what basis Sen has concluded that "Tamil Nadu has had an active but *cooperative* family planning programme" (emphasis ours). In our view Sen has used the term cooperation to mean the opposite of coercion and/or authoritarianism. The term itself is not problematised to explore whose cooperation is being sought and on what terms. The fact that women can be coerced into cooperation cannot be accommodated in Sen's presentation. Feminist researchers and activist groups are still grappling with the phenomenon of fertility decline in Tamil Nadu and attempting to unravel its implications for policy, but not many are prepared to buy the `enlightened state' or the 'cooperative family planning' argument. As one researcher very succintly summed up the present state of research on the question: "We have yet to learn from the women concerned why they are having fewer children while women from other parts of the country living under similar economic and social conditions are unable or unwilling to do so."[2]

The present paper is part of a larger agenda aimed at exploring the complex interaction of various forces and factors underlying the phenomenon of fertility decline in Tamil Nadu. Its genesis lies in the findings of a disaggregated analysis of fertility rates within Tamil Nadu which revealed that there exist districts like Kanyakumari on the one hand and Periyar on the other, (representing two polar situations as it were), the former marked by high fertility rates despite high female literacy rates,[3] the latter marked by low fertility rates despite low literacy rates. Our broad agenda includes initially a collation and analysis of available material from secondary sources to get a geographically disaggregated picture of the economy and demography of Tamil Nadu. This will be followed by intensive interviews with different sections of the population

in representative districts, disaggregated by sex, religion, class, employment, community, etc.

An important question for examination in the course of the field work will be the concrete manner in which women's freedom of reproductive choice is constrained by patriarchal structures, which in the context of districts like Kanyakumari seem to be coercively pronatal as manifested in the high levels of fertility there.[4] Coercive pronatalism can be the result of social and economic inequality not just between communities and families, but, more so, within the family, which, in turn reduces the bargaining power of individual women, thereby making it possible for husbands to impose their own family size decisions on wives. The study of districts like Periyar, in contrast, would constitute an interesting testing ground to explore the much touted and oft-repeated statement that southern kinship systems bestow relatively greater autonomy on females than northern kinship systems. Greater or high autonomy in this context implies an ability to influence and make decisions covering the full range of personal, sexual and household affairs. Thus concrete exploration of the relationship between patriarchy and motherhood, should, we hope, go some way towards explaining what combinations of cultural, economic and political conditions interact to create a particular demographic pattern. More important, knowledge of the processes involved is crucial to policy analysis to avoid facile linear causal connections as between, say, female schooling and fertility, and/or between female employment and fertility.

The modest objective of this paper is to provide a framework to situate the larger study outlined above. We begin with a brief discussion of the current demographic debate in India generated largely by the Draft National Population Policy Report of an expert group set up by the government of India.[5] This discussion on the Draft National Population is important in order to contextualize our study of Tamil Nadu. In the light of Tamil Nadu's experience the view being highlighted by demographers (and which viewpoint dominates the draft policy) is that fertility can be made to decline at different levels of economic and social development through organised and effectively administered family planning programmes. By and large, the feminist response to this draft, at one level, is reminiscent of the classic discourse on, whether high population is a malady or symptom;[6] at another level it reveals the different dimensions of the violence on women of a direct fertility reduction programme. Using Kanyakumari and Periyar as illustrative cases we hope to underscore two main points:

(a) The theoretical approach to population policy as such needs to move away from the perspectives of demographers who define policy in a very restrictive way. In the 'general linear reality' assumption of much of demographically driven policy, the same variables must have the same

effects irrespective of context. Such policy does not recognize and therefore does not provide the space to explore the differential impact of the same policy on diverse socio-economic subpopulations across nation-states and/or territorial subunits within nations.[7]

(b) The concept of increased women's agency through variables such as increased female literacy and increased female labour force participation has been conflated to indicate increased female autonomy in decisions relating to fertility. This, to us, is highly problematic, since, among other things, the whole issue of fertility is linked to sexuality. There is, therefore, need to document even for a demographic understanding of fertility, the elements of sexual choice, sexual health and sexual enjoyment from a gender perspective. This would capture, at one level, how vulnerable or otherwise, couples in general and women in particular are, to pressures emanating from the wider needs of the caste/community to which they belong. At another level it would also indicate the degree to which women (within these caste/kinship structures) are able to influence decisions on questions such as the number of children, the use of contraception and of particular contraceptive methods, termination of pregnancy – in short, the whole question of the quality of partnership between man and woman.

II

The tabling of the Draft National Population Policy (henceforth, the draft) marks in some sense a watershed as far as the politics and praxis of demography (in this country) is concerned. The basic premise of the Draft is that population stabilisation is vital for safeguarding the livelihood security of the poor and the ecological security of the nation. Thereafter there is a complete disjuncture between the analysis of the 'population problem', the socio-demographic goals sought to be achieved by the year 2010 and the structures and measures designed for implementation.

The analysis at once, very cleverly combines what has come to be known in the literature on population as the 'political discourse' and the 'development discourse'.[8] Very briefly, the 'political discourse' challenges the traditional models of development. "It does not treat population growth as an exogenous factor, but sees it directly linked with the institutional structure of society."[9] The development discourse on the other hand, considers that "population is basically an independent phenomenon linked to the introduction of modern medicine in traditional communities: that low fertility rates are a characteristic of development and therefore something desirable in itself: that people in the South will desire less children if they are provided safe modern contraceptives, better health services and education."[10]

The political discourse part of the Draft, very correctly identifies those responsible for the environmental crisis. To quote the draft:

> The unsustainable life styles of both wealthy nations and wealthy people everywhere are posing a threat to climate, particularly precipitation and are contributing to a potential rise in sea levels and ultra-violet B radiation. Under such circumstances, the loss of every gene or species limits our capacity to adapt to new situations. It is high time the limits to the human carrying capacity of the supporting eco-systems are recognised.

However, the above statement is immediately followed by the assertion that:

> Population, poverty and environmental degradation have close linkages, and quest for food, education, health and work for all will remain illusory unless success is achieved in limiting the growth of population (emphasis added).

In one swift action, from one paragraph to another, the Expert Group has been able to traverse what took the US nearly 60 years of demographic research.[11]

The draft claims, to have ushered in a 'new paradigm of population stabilisation based on "environmental stabilisation, economic replicability and social equity". This paradigm shift is, according to the draft, essential for achieving the following national socio demographic goals for the year 2010.

i) Implementation in totality of the Minimum Needs Programme, and in particular, universalisation of primary education and reduction in the drop-out rates of primary and secondary school students, both boys and girls, abolition of child labour and priority to primary health care.

ii) Reduction in the incidence of marriage of girls below the age of 18 years to zero.

iii) Increase in the percentage of deliveries conducted by trained personnel to one hundred per cent.

iv) Reduction in maternal mortality rate to less than 100 per 100,000 live births.

v) Universal immunisation of children against tuberculosis, polio, diptheria, whooping cough, tetanus and measles and reduction in the incidence of diarrhoea and acute respiratory infections.

vi) Infant Mortality Rate (IMR) of 30 per 1000 live births, and a sharp reduction in child mortality rate (1-4 years); also, a sharp reduction in the incidence of low birth weight babies (below 2.5 kg)

vii) All individuals to have access to information on birth limitation methods, so that they have the fullest choice in planning their families.

viii) Universal access to quality contraceptive services in order to lower the Total Fertility Rate (TFR) from 3.6 in 1991 to 2.1 by the year 2010.

ix) Containment of AIDS and sexually transmitted diseases.

x) Full coverage of registration of births, deaths and marriages.

Predictably the 'paradigm shift' is articulated more in terms of demo-

graphic goals; here again the target population consists of women and children precisely because the responsibility for limiting birth is deemed to be a women's responsibility. Between analysis of the problem and the specification of the goals, the draft has managed a neat transition involving a shift from (a) identifying the consumption and living standards of the north plus the elites of the south as (historically and currently) responsible for environmental degradation, to (b) postulating that stabilising world population is the more realistic way to move towards sustainability, and further towards (c) suggesting the creation of such an 'enabling environment' that ultimately makes fertility reduction the key to the whole problem.

The structures and measures suggested by the group to achieve a total fertility rate of 2.1 by the year 2010 are explicitly based on the assumption that "people who have large families should change their behaviour because the ones who created the problem in the first place cannot do so."[12] As part of its structures for implementation the Draft envisages a major role for panchayat raj institutions in the implementation of the proposed population control programme. What makes this laudable objective at once both anti-poor and anti-women stems from the Draft's poor conception of these institutions as well as the punitive clauses that make participation in these institutions conditional.[13]

Responses to the draft, particularly from a large section of women's groups all over the country, in many ways questioned and reversed the terms of the problematique as posed by the Expert Group. Women not only held India's development model adopted since independence responsible for its economic crises, but going further, argued that, in a scenario, where the 'ever teeming millions' constitute an expanding constituency of the poor, the malnourished, the diseased and the deprived, population growth in fact very often becomes a solution, particularly at the local level.

The apporoach to matters of population policy clearly revealed fundamental differences in perception between the Expert Group and the women's groups in particular. While women implicitly seemed to stress the importance of motivation over means, the Expert Group (which had an overdose of demographers) – invoking the supposed urgency of the problem it was solving – articulated its policy in terms of the attainment of certain specified aggregate demographic targets. To demographers, as Demeny, has ably put it, "the problem of motivation seemed and was inherently difficult: systemic and structural. The problem of means in contrast, was potentially soluble by suitable application of money: packageable as a program embodying specific and tangible resources."[14]

The draft itself was a culmination of a series of observations and studies undertaken by the members of the group as well as other pro-population policy researchers. Despite strident criticism of the draft from

various quarters, the members of the group upheld the right of the state to intervene directly in birth control; at public forums they were however careful in butteressing their arguments with a lot of pro-women stances using feminist vocabulary. An important member of the Expert Group and also the architect of Tamil Nadu's family planning programme, is T V Antony. Since, demographically speaking, the decade of the 1980s belongs to T V Antony and to Tamil Nadu (in that order) it is to a consideration of Tamil Nadu's fertility reduction record that we will now turn.

III

Antony's impatience with the critics of family planning programmes and his frustration with those who do not share his characterisation of population as the problem is discernible from the following outburst:

> What is most frustrating is that despite the disastrous implications of this explosive population growth for every sector of the economy and in particular to the environment, there does not appear to be much public support for the family planning programme. Whereas inflation, natural calamities, environmental degradation, etc. are all among the many topics which capture media and public attention today, family planning rarely gets any mention. What is forgotten is that these problems which are now being highlighted represent only the external manifestation of our primal malady, namely, a rapidly growing population![15]

Even while listing 'other important factors which influence fertility', Antony's preocupation with birth control as the ultimate goal comes out very starkly.

> "In preaching a way of life involving later marriage, lower IMR, higher birth weights for children, spacing and stopping the child birth cycle early, contraception has an important role to play. If in Tamil Nadu, the CBR has fallen drastically to about 20/1000 in recent years, I believe it was caused not so much by its female literacy level (which is not remarkable) nor by its health standards, nor by its age of marriage levels, or its couple protection rates, but by a combination of all these, plus above all the conviction that has now been implanted in the minds of practically every couple, that a small family is ideal, that children need not die etc. This has been done through the dedicated services of the over two hundred thousand Mid day meal employees, and the several thousand health and social workers in allied nutrition and health programmes both in government and in the very effective voluntary organisations under the overall umbrella of a supportive political system."[16]

Antony's euphoria over what he considers to be a successful government intervention in the field of fertility reduction finds its echo in the international arena as well. In his analysis of the Asian fertility reduction, Caldwell argues that the considerations that needed to be addressed with regard to the historical European fertility transition are wholly inadequate for addressing contemporary third world fertility transition, especially in

Asia.[17] Any comprehensive demographic transition theory now has to consider, in addition, according to Caldwell, such matters as the following: "Are women or couples more likely to limit family size if free or cheap contraception is readily available and if its availability is made widely known? Are they more likely to employ such contraception if it is made respectable and the morally appropriate thing to do because of the urging of national leaders, local bureaucrats, family planning workers, and the media? Are they likely still to employ contraception if there are elements of community pressure or even governmental duress?" And Caldwell himself provides the answer by stating that: "The evidence from that part of Asia that lies in an arc from South Korea to India is that the answer to all these questions is 'yes'."[18]

Fertility Decline in Tamil Nadu: Other Perspectives

The discussion in this section dwells on those studies that go beyond narrow demographic details to encompass broader issues of social and economic development including dimensions of patriarchy, gender inequality and women's agency.

Sunita Kishor's study of fertility decline in Tamil Nadu is part of a series of publications stimulated by the preparations for the UN 1994 Conference on Population and Development.[19] The objective of this study, in the author's words, is to "evaluate the pace and timing of decline in fertility in Tamil Nadu and to identify the socio-economic, cultural, and institutional factors responsible for it."

In her analysis of the political and social background of Tamil Nadu, it is unfortunate that the author has uncritically accepted the propaganda unleashed by M/s Antony and Co, regarding Periyar's positive influence on various retrograde social practices and beliefs linked largely to the caste system. To admire Periyar for then having zeaslously advocated pro-women reforms is one thing; but from there to jump to the conclusion that "His [i e Periyar's] ideas have undoubtedly had a far-reaching impact on social and political developments in the State", and that the political parties subsequently at the helm of affairs in Tamil nadu are "symbolic of Dravidian culture", is neither methodologically tenable, theoretically sound or even empirically founded.

In attempting to establish the linkage between fertility and the level of economic and social development, the author notes that, "the challenge in explaining fertility decline in Tamil nadu arises not from denying the link between development in Tamil nadu and fertility there, but from recognising that a large majority of the population was excluded from the benefits of economic development and remained in poverty even as it continued to benefit from the social developmental changes" (emphasis as in the original). A specific combination of continuing absolute deprivation, but an increasing sense of relative deprivation and rising but

unfulfilled aspirations, according to the author, has led to reductions in fertility in Tamil Nadu even among the majority whose economic welfare was not significantly improved by development.

In the discussion on the official family planning programme, the author, while acknowledging that the programme has been critical to the spread of contraception, however finds that the most common method of family limitation has been sterilization. Among sterilisations, the share of tubectomies has increased substantially with younger women with fewer children. Simultaneously the author finds that female dependent contraception, though still very limited is increasing.

Despite the above findings the author contends, that, "these statistics undoubtedly reveal the continuing success of the family planning program in Tamil Nadu" (emphasis added). She does, however, realize that the statistics raise important questions concerning the changing role of women in the family planning programme, namely, "are there pressures forcing women to undergo tubectomies at a relatively young age, or are they accepting sterilisation of their own free will? Can there be 'free will' in the acceptance of sterilisation if there are no alternatives to choose from? These and associated questions raise fundamental issues about the long term reproductive health and reproductive freedom of men and women in a family planning environment involving limited choice and even coercion."

It is intriguing, how, despite an elaborate discussion which attempts to forge a link between fertility, women's status and kinship structures, the author is not able to problematise and/or weave in her adverse empirical findings (for women) on the family planning front to the existing notions of 'high cultural status of women' in Tamil Nadu.

Following Dyson and Moore,[20] it has become almost axiomatic to argue that the observed north-south dichotomy in fertility patterns in India has a lot to do with the dichotomy in kinship patterns between the north and south, which in turn bestow different degrees and levels of autonomy on women. It is argued that the kinship structure in Tamil Nadu – characterised by general village endogamy, cross-cousin marriages generally, where affinity is as important as descent in social, political and economic cooperation, where women sometimes inherit property – is conducive to greater autonomy for women and therefore lower fertility rates.[21] "Autonomy" according to Dyson and Moore, "indicates the ability – technical, social and psychological – to obtain information and to use it as the basis for making decisions about one's private concerns and those of one's intimates. – [Thus] equality of autonomy between the sexes in the present sense implies equal decision making ability with regard to personal affairs."[22]

If we start with the assumption that improvements in status do not necessarily lead to increase in autonomy in the sense in which Dyson and

Moore define it above, then, understanding of the power relations between men and women is essential if women's capability to participate in decisions affecting reproduction is to be enhanced. Further, reproductive decision-making while very much a personal concern of the couple concerned, is also significantly influenced by the social location of the women in particular, her access to independent information and support structures and the degree of physical mobility that she can enjoy/claim. Beyond a point, the impact of education and work on reproduction, as also the specific relationship between patriarchy and fertility need to be empirically tested. This is imperative if we have to go beyond an instrumental treatment of women's education and employment to really substantiate the concepts of women's autonomy and empowerment and how these impact on reproduction.

IV

In much of the literature discussed above, there is hardly any space to locate and analyse the differentiated fertility patterns obtaining among diverse socio-economic subpopulations making up the state of Tamil Nadu. This, in our view, has a lot to do with the nature of concerns engaging much of social science, particularly, demographic research; these tend to concentrate more on the search for context-free general laws, very often expressed in the form of mathematical functions that can then be applied universally. Such an approach cannot capture micro-level paradoxical outcomes of policies enacted at the macro level. Johansson refers to the need to look for the role of 'implicit' policy in such a context, where 'implicit' policy includes the role played by all forms of state activity whether or not such activity was intended by the government to change fertility patterns, let alone bring about a specific form of change.[23] The importance of such an approach lies in the fact that it can capture the reactions of sets of individuals belonging to various subpopulations in 'specifically contextualised terms'. To quote Johansson,

> In a contextualised analysis, the same determinant (for example, state policy X) can be very influential among the subpopulation of couples in context A, while having no effect whatsoever on the subpopulation in context B, or even the opposite effect on the subpopulation in context C. The differential impact of policy in various contexts can occur even when all three subpopulations supposedly share the same geographical space (a country or town) and time period (for example, the late nineteenth century). Therefore measuring and statistically comparing the effects of the same policy across a large number of subpopulations, which by definition do not live in the same context (even if they live in the same nation, province, country, town or parish), is not a meaningful empirical activity. On the other hand, similar contexts (which foster the same interpretation of, and response to policy for decision making purposes among the members of a subpopulation) can occur among subpopulations that are widely separated in space and time.[24]

We hope to (ultimately) contextualise in Johanssonian terms the paradoxical (fertility) outcomes discernible within Tamil Nadu. A larger question raised by this exercise (the examination of which however lies outside the scope of this paper) is, what should constitute the unit of analysis. For demographers the overriding success indicator of population policy is its impact on the level of fertility whatever be the characteristics and nature of the area/people on whom the policy is administered. Under such circumstances the unit of analysis becomes a matter of convenience and not an issue for discussion or debate. The application of the Johanssonian framework, however, necessitates identification and isolation of subpopulations within a geographical space even to begin the process of understanding why a particular policy creates different responses among subpopulations even within the same geographical space.

However methodologically incorrect the use of administrative demarcations (in this case, district) as a unit of analysis may be, we have persisted in their use for our discussion for the following main reason: the demographic argument of causal relationship between certain conventional indicators (like female literacy and female labour force participation) and fertility stands discredited even on its own terms. For Tamil Nadu, using largely the 1981 Census data, we have studied the two districts of Periyar and Kanyakumari as illustrative of two polar cases to raise certain questions relating to the notion of women's autonomy in decision making on fertility related issues. Even if it is argued that the picutre presented by the 1991 census data is/could be substantially different from that revealed by the 1981 census data, the questions of

(a) why this has taken place, and

(b) whether this change has to do with the autonomous status of women to effect a change, still remains relevant.

Our exercise begins with a set of data that posits the demographic picture of Periyar and Kannyakumari vis-a-vis the rest of the state. (The patterns that the data produce and the questions that they raise will form the foci for the field investigations to be carried out in the course of implementation of the larger project).

1) While the decline in fertility rates in Tamil Nadu has led to all kinds of suppositions being made about greater female autonomy (ostensibly because of higher female literacy rates, greater female work participation rates, female-friendly kinship structures, etc.), the other side of the coin, namely the declining female-male ratio has not been simultaneously posited alongside and analysed. In fact the sex ratio has been continuously declining in Tamil Nadu since the beginning of the century. From 1044 in 1901, it has come down to 974 in 1991.[25] Dreze and Sen's decomposition analysis of the female-male ratios between 1901 and 1991 show that the largest absolute declines in the ratios have taken place in Bihar, Orissa, Tamil Nadu, Madhya Pradesh, Maharashtra and Uttar Pradesh.[26]

2) Within Tamil Nadu, the district of Periyar shows a steep decline in female-male ratio between 1901 and 1991; Kanyakumari, which at no time had a favourable female-male ratio, neverthless, only shows a marginal decline. Interestingly, while for the state as a whole as well as for Periyar, the urban female-male ratios are much worse than for rural areas, in Kanyakumari, on the other hand, the urban areas seem to be more favourable to women. In fact, the 1991 urban female-male ratio for Kanyakumari stands at 1001.[27] (Table 1)

3) Table 2 provides the unadjusted fertility rates by districts for Tamil

TABLE 1: FEMALE-MALE RATIO: BY LOCATION
(TAMIL NADU, PERIYAR, KANYAKUMARI)

	1981		1991	
	Rural	Urban	Rural	Urban
Tamilnadu	987	956	981	960
Periyar	960	941	969	952
Kanyakumari	983	995	989	1001

Source: Computed from *Census of India*, 1991, Series-23, Tamil nadu. Primary Census abstract for General Population, Part II - B (i), Director of Census Operations, Tamil Nadu.

TABLE 2: UNADJUSTED FERTILITY RATES BY DISTRICTS IN TAMIL NADU

India/State/District	Unadjusted				
	CBR	TFR	TMFR	GFR	GMFR
India	25.67	3.6	4.3	112	139
Tamil Nadu	24.37	3.0	4.2	94	129
Madras	22.75	2.5	3.8	85	121
Chengalpattu	26.11	3.2	4.4	103	138
North Arcot	27.74	3.6	4.6	112	146
South Arcot	26.73	3.4	4.3	116	136
Dharmapuri	27.95	3.7	4.6	116	145
Salem	20.71	2.4	3.4	79	103
Periyar	18.85	2.2	3.2	70	93
Coimbatore	19.77	2.3	3.5	74	104
Nilgiris	22.79	2.5	3.9	84	124
Madurai	22.67	2.8	4.0	88	122
Tiruchirapalli	22.16	2.7	3.8	84	115
Thanjavur	23.46	2.9	4.0	89	122
Pudukottai	27.87	3.6	4.9	109	149
Ramanathapuram	27.11	3.5	4.8	104	146
Tirunelveli	27.38	3.6	5.1	105	154
Kanyakumari	25.57	3.3	5.4	98	163

Source: *Census of India*, 1981, Occasional Paper No.13 of 1988. *Fertility in India An Analysis od 1981 Census data*, Office of the Registrar General, India. New Delhi, p.118.

Nadu; Periyar shows the lowest rates be it the CBR, TFR, TMFR, GFR, or GMFR. On the other hand, while Kanyakumari is on the high side for almost all the ratios, those which are particularly striking are the TMFR and the GMFR.

4) Table 3 gives age and location-wise data on the different fertility measurements for Periyar, Kanyakumari and the state as a whole. We find that:

a) Fertility ratios for Kanyakumari are above those for the state in both rural and urban areas but in the same direction, with rural ratios exceeding the urban ones.

TABLE 3: FERTILITY RATES: BY AGE AND LOCATION
(TAMIL NADU, KANYAKUMARI AND PERIYAR)

	Total (R + U)			Rural			Urban		
	TN	KK	PER	TN	KK	PER	TN	KK	PER
CBR	24.18	25.38	18.73	24.57	25.73	17.59	23.37	23.67	22.74
GFR	94.25	98.68	70.12	96.47	100.77	65.86	89.83	89.06	85.23
TFR	3.00	3.29	2.18	3.14	3.37	2.10	2.71	2.94	2.92
GMFR	128.98	163.12	94.01	129.75	167.08	88.18	127.38	145.16	114.80
Age Group	**Percentage of currently married females**								
15-19	22.81	4.92	20.54	24.59	4.71	19.44	20.24	5.88	24.08
20-24	75.49	44.61	76.44	78.91	44.39	76.11	69.58	45.62	77.42
25-29	92.19	83.31	92.96	93.24	83.35	92.87	90.25	83.12	93.27
30-34	92.92	92.08	92.64	92.91	91.93	92.39	92.93	92.76	93.54
35-39	90.89	91.15	91.15	90.61	90.91	90.99	91.52	92.24	91.80
40-44	83.96	86.55	86.03	83.70	86.29	86.07	84.58	87.68	85.83
45-59	77.22	81.76	81.48	77.19	81.68	82.36	77.30	82.11	77.60
	Age-specific Fertility Rates (ASFR)								
15-19	42.22	9.35	33.05	43.79	9.01	29.91	39.33	10.94	43.16
20-24	184.63	133.06	171.53	190.36	132.58	162.80	174.71	135.24	197.05
25-29	175.37	226.72	130.16	180.64	232.15	125.70	165.69	201.02	144.32
30-34	109.68	151.01	60.85	116.96	156.33	60.75	94.77	126.76	61.21
35-39	59.44	94.85	25.78	64.56	99.16	25.74	47.91	74.93	25.95
40-44	21.56	34.89	9.74	24.35	35.77	10.52	14.99	31.05	6.22
45-59	7.02	8.25	5.00	7.84	8.45	4.94	5.06	7.30	5.26
	Age-specific Marital Fertility Rates (ASMFR)								
15-19	185.13	190.12	160.93	180.99	191.24	153.88	194.29	185.96	179.26
20-24	244.57	298.27	224.39	241.24	298.67	213.91	251.09	296.48	254.53
25-29	190.23	272.14	140.01	193.73	278.51	135.36	183.59	241.85	154.74
30-34	118.03	164.00	65.69	125.88	170.06	65.76	101.98	136.66	65.43
35-39	65.39	104.06	28.28	71.25	109.07	28.29	52.35	81.24	28.26
40-44	25.67	40.32	11.32	29.09	41.45	12.22	17.72	35.41	7.25
45-59	9.09	10.08	6.13	10.15	10.35	6.00	6.55	8.89	6.78

Source: Computed from : *Census of India, 1981*, Series-20, Tamil Nadu, Fertility Tables, Part VI A-B, Director of Census Operations, Tamil Nadu.

b) In Periyar, on the other hand, all the ratios are far below the average for the state, and their direction is different: the rural ratios are far below the urban ones.

c) The data on percentage of currently married females reveal an interesting pattern: in Kanyakumari less than 5 per cent of the females in the age-group 15-19 are married as compared to 22 per cent for the state and 20 per cent for Periyar. In fact, it is only from the age-group 25-29 onwards that one finds a substantial percentage of females married in Kanyakumari. Again the percentage of married females in each of the age-groups is almost the same for rural and urban areas in Kanyakumari.

d) For the state as a whole, the percentage of currently married females in rural areas exceeds that in the urban areas only upto the age group 30-34; thereafter the urban percentage exceeds the rural percentage. In Periyar on the contrary, the percentage of currently married females in rural areas is less than the urban figure upto the

TABLE 4: DISTRICTS ARRANGED IN DESCENDING ORDER OF THEIR FEMALE WORK PARTICIPATION RATE, 1991

Rank in 1991	District	Female Work Participation Rate 1991	1981	Rank in 1981
	TAMIL NADU	29.89	26.52	..
1	Kamarajar	42.18	41.69	1
2	Tirunelveli-Kattabomman	40.22	33.91	4
3	Periyar	38.66	36.51	2
4	Dindigul-Anna	38.32	34.44	3
5	Pasumpon Muthuramalinga Thevar	37.66	25.10	16
6	Dharmapuri	37.39	29.20	8
7	Salem	36.69	33.34	5
8	Ramanathapuram	35.87	28.66	10
9	Tiruvannamalai-Sambuvarayar	35.82	33.34	5
10	Tiruchirapalli	34.81	29.41	7
11	Pudukottai	33.00	26.49	15
12	South Arcot	31.81	26.75	14
13	Madurai	31.77	28.85	9
14	Chidambaranar	30.05	28.08	12
15	Nilgiri	29.75	26.81	13
16	Coimbatore	26.91	28.19	11
17	North Arcot-Ambedkar	26.09	23.06	17
18	Thanjavur	24.87	21.63	18
19	Chengalpattu -MGR	21.77	20.68	19
20	Kanniyakumari	11.03	9.34	20
21	Madras	8.44	6.80	21

Source: *Census of India, 1991*, Series-23, Tamil Nadu, Primary Census Abstract for General Population, Part II - B (i), Directorate of Census Operations, Tamil Nadu, August 1993, p 44

age-group 35-59 – a complete reversal of the direction obtaining for the state as a whole.

e) There is a drastic fall in ASFR and ASMFR for Periyar and for the State as a whole after the age group 25-59; for Kanyakumari on the other hand it remains very high almost upto the age-group 35-59. For Periyar, in addition, the rural ASFR and ASMFR are far below the urban rates.

5) The figures for (overall) work participation rates show that in Periyar almost 37 per cent of women are 'workers' in the census sense as compared to only 11 per cent for Kanyakumari. (Table 4) An occupational category-cum-age classi-fication of these data however tell an interesting tale.(Table 5,6,7) Even though overall work participation rates for women are far below the rates for men, an analysis of even this small component of women workers reveals the following pattern:

a) For Kanyakumari, the proportion of female workers in the age-groups 0-14, 15-19 and 20-24 is significantly higher than the proportion of male workers in these same age-groups. Thereafter, that is from the age group 25-29 onwards, the proportion of male workers exceeds women workers in all subsequent age-groups. This is true for both the urban and rural areas.

b) Using census industrial categories we note that in Kanyakumari, unlike in the rest of the state or even in Periyar, women workers are visibly concentrated in large numbers in the category 'Manufacturing, Processing, Servicing and Repairs'. The Census breaks this category further into two parts, namely, the 'Household Industry', and the 'Other than Household Industry'. Here again, in contrast to the generally observed phenomenon elsewhere, women workers in Kanyakumari are proportionately more in the 'Other than Household Industry' category than in the 'Household Industry' category. This is true for both urban and rural Kanyakumari.

c) What is also very striking is that in Kanniyakumari, the peak employment age for this category of 'Manufacturing, Processing, Servicing and Repairs' happens to be the age group 15-19. There is a slight fall in the level of employment in the age group 20-24 but it is still quite substantial. There occurs a dramatic fall in the proportions employed in the age group 25-29, and in the subsequent age groups the numbers of women workers in this industrial category do not reach their earlier proportions.

d) While causality still needs to be empirically established, juxtaposing the above data with that relating to the percentage of currently married women in the different age-groups for Kanyakumari will caution those who read too much progress into the phenomenon of rising age at marriage for females. In Kanyakumari we saw that, less than 5 per cent of the females in the age group 15-19 are married, and that, it is only from the age-group 25-29 onwards that one finds a substantial percentage of

females married. Whether the nature of available employment and/or marriage practices pressurises families to send young adolescent girls for such work before getting them married needs to be concretely established.

e) In Periyar district the rural and urban data on female workers by age and employment category show different patterns. In the rural areas the two dominant census categories of work employing large numbers of women are 'agricultural labour' and 'cultivator'. The proportions of women employed in these two categories in the age-groups 0-14, 15-19 are higher than the proportions of male workers in the same age groups in the same categories; however, while in the subsequent age groups men are proportionately more in numbes than women, the fluctuations in proportions among women workers between the age-groups 20-24 to 40-49 are only marginal.

TABLE 5: DISTRIBUTION OF FEMALE WORKERS BY CENSUS OCCUPATIONAL CATEGORY: DESCENDING ORDER

Occupational Category	Rural Total Workers	Rural Percentage Workers	Occupational Category	Urban Total Workers	Urban Percentage Workers
			Periyar		
Total (all categories)	330581	...	Total (all categories)	38526	...
Agricultural labourers	202941	61.39	Manf Proc Ser & Reps	12921	33.54
Cultivators	80319	24.30	Agricultural Labourers	10665	27.68
Manf Proc Ser & Reps	30056	9.09	Other Services	6367	16.53
Other Services	7323	2.22	Trade and Commerce	3940	10.23
Trade and Commerce	4373	1.32	Construction	2128	5.52
Construction	3256	0.98	Cultivators	1339	3.48
Livestock	2163	0.65	Transport	853	2.21
Transport	145	0.04	Livestock	313	0.81
Mining	0	0.00	Mining	0	0.00
			Kanyakumari		
Total (all categories)	52475	...	Total (all categories)	13522	...
Agricultural Labourers	18582	35.41	Manf, Proc, Ser, & Reps.	7201	53.26
Manf Proc Ser & Reps	18344	34.96	Other Services	4481	33.14
Other Services	8756	16.69	Trade and Commerce	829	6.13
Cultivators	2836	5.40	Agricultural Labourers	705	5.21
Trade and Commerce	2364	4.51	Transport	137	1.01
Livestock	1124	2.14	Cultivators	111	0.82
Transport	176	0.34	Construction	30	0.22
Mining	147	0.28	Livestock	29	0.21
Construction	137	0.26	Mining	0	0.00

Source: Computed from *Census of India, 1981*, Series - 20, Tamil nadu General Economic Tables, Part III-A and B (i), Tables B-3, and B-7.

f) In urban Periyar, the domiant activity categories for women workers are 'Manufacturing, Processing, Service and Repairs and 'Agricultural Labour'. Within the 'Manufacturing...' category, those employed under the head 'Other than Household Industry' are more than those under the head 'Household Industry'. Besides, the former show the same

TABLE 6: LOCATION-CUM-AGEWISE CLASSIFICATION OF IMPORTANT INDUSTRY GROUP FOR FEMALES
KANYAKUMARI

Age Group	Total Workers		Manufg, Procs, Services and Repair: Agricultural Labourers		Household Industry		Other than Household Industry		Other Services	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Total	347327	65997	134675	19287	8834	12669	24283	12875	32403	13237
0-14	1.53	4.64	2.06	3.51	1.90	5.81	3.05	10.79	0.44	1.01
15-19	8.42	17.39	11.18	12.21	7.38	27.66	10.46	35.95	1.85	3.22
20-24	12.25	14.83	14.03	12.46	10.45	18.72	14.01	21.86	5.65	10.95
25-29	13.81	12.07	13.98	12.35	11.33	9.99	15.29	3.44	11.68	17.52
30-34	11.90	10.77	10.66	9.21	11.66	7.88	11.82	5.78	16.49	20.28
35-39	12.04	11.32	10.83	12.37	10.09	9.27	12.33	5.20	18.45	18.40
40-49	19.26	15.99	17.52	18.64	19.65	12.31	17.02	7.12	28.48	20.11
50-59	12.62	8.39	11.87	11.64	16.06	5.58	10.57	3.60	13.08	6.81
60 +	8.16	4.60	7.61	7.62	11.46	2.82	5.46	1.24	3.87	1.71
Rural										
Total	288252	52475	130467	18582	6968	9286	14040	9058	22208	8756
0-14	1.51	4.82	2.03	3.57	2.25	6.83	2.93	12.10	0.32	0.34
15-19	8.62	17.81	11.18	12.29	7.75	29.44	9.74	39.55	1.85	2.66
20-24	12.43	14.89	14.05	12.58	10.98	19.53	14.29	22.49	5.44	11.09
25-29	13.88	12.16	14.04	12.61	11.67	9.89	16.23	8.05	12.37	18.81
30-34	11.70	10.46	10.67	9.44	11.88	7.43	12.24	4.10	16.95	21.90
35-39	11.91	11.17	10.80	12.52	10.02	8.25	12.93	4.44	18.51	18.99
40-49	18.93	15.46	17.52	18.04	18.84	11.26	17.21	5.14	27.65	18.88
50-59	12.51	8.43	11.82	11.59	15.69	4.63	9.55	3.00	12.68	6.16
60 +	8.50	4.80	7.58	7.37	10.88	2.75	4.88	1.10	4.20	1.28
Urban										
Total	59075	13522	4208	705	1865	3384	10243	3817	10196	4481
0-14	1.64	3.95	2.83	1.99	0.59	3.01	3.20	7.68	0.71	2.32
15-19	7.45	15.77	9.60	9.93	6.01	22.72	11.43	27.43	1.86	4.31
20-24	11.34	14.60	13.28	9.36	8.47	16.49	13.65	20.38	6.09	10.64
25-29	13.45	11.73	12.19	5.53	10.08	10.25	13.99	9.41	10.17	15.00
30-34	12.89	11.95	10.50	3.26	10.83	9.07	11.25	9.77	15.50	17.32
35-39	12.66	11.89	11.86	8.23	10.35	12.06	11.51	6.97	18.31	17.25
40-49	20.87	18.04	17.68	34.61	22.63	15.19	16.75	11.82	30.28	22.54
50-59	13.14	8.23	13.45	13.05	17.48	8.19	11.97	5.00	13.94	8.08
60 +	6.54	3.83	14.33	14.33	13.62	3.00	6.26	1.57	3.16	2.57

Source: Same as Table 5.

TABLE 7: LOCATION-CUM-AGEWISE CLASSIFICATION OF IMPORTANT INDUSTRY GROUP FOR FEMALES
PERIYAR

Age Group	Total Workers		Cultivators		Agricultural Labourers		Manufg, Procs, Services and Repair: Household Industry		Manufg, Procs, Services and Repair: Other than Household Industry		Other Services	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Total	701992	369107	217130	81659	201520	213606	42526	22149	84400	20828	46572	13690
0 - 14	4.50	8.16	2.13	4.03	8.78	9.63	4.14	8.61	4.96	11.86	1.19	3.28
15 - 19	10.71	13.99	7.81	9.67	15.47	15.31	11.79	17.60	13.94	22.47	3.29	6.09
20 - 24	12.14	11.66	10.70	10.17	12.44	12.00	14.39	13.37	16.00	14.73	5.97	10.26
25 - 29	12.16	11.61	10.28	11.14	11.16	11.52	12.31	12.11	14.36	11.96	12.18	14.72
30 - 34	10.71	10.36	9.73	10.52	8.85	10.15	10.23	9.75	11.95	9.33	16.58	15.79
35 - 39	11.03	11.87	10.42	12.58	9.75	11.35	10.79	11.61	11.46	10.72	16.72	16.68
40 - 49	18.40	17.06	19.77	20.76	16.57	16.03	17.60	15.19	15.27	11.67	25.55	20.01
50 - 59	12.07	10.04	15.67	13.73	10.33	9.27	11.53	7.43	8.15	5.06	13.15	9.81
60 +	8.27	5.76	13.50	7.41	6.64	4.75	7.22	4.33	3.90	2.19	5.39	3.35
Rural												
Total	550634	330581	210897	80319	191795	202941	37221	19032	40665	11024	27563	7323
0 - 14	4.84	8.21	2.15	4.03	8.88	9.71	4.28	8.56	4.52	11.16	1.46	3.32
15 - 19	11.11	13.97	7.89	9.72	15.55	15.27	11.94	17.91	14.20	22.66	3.86	6.98
20 - 24	11.96	11.57	10.75	10.19	12.49	12.01	14.55	13.45	15.50	14.07	6.50	10.06
25 - 29	11.40	11.49	10.28	11.21	11.14	11.53	12.25	11.89	13.76	11.71	11.08	13.19
30 - 34	10.01	10.26	9.76	10.55	8.85	10.11	10.18	9.82	11.44	8.93	15.11	15.36
35 - 39	10.76	11.77	10.39	12.60	9.72	11.50	10.94	11.39	11.86	11.35	17.00	16.51
40 - 49	18.44	17.17	19.76	20.72	16.52	16.02	17.39	15.37	15.94	12.74	25.45	20.31
50 - 59	12.46	10.17	15.67	13.65	10.27	9.25	11.44	7.19	8.43	5.02	13.17	10.51
60 +	9.03	5.39	13.35	7.34	6.58	4.80	7.05	4.41	4.35	2.38	6.37	3.76

(Contd)

TABLE 7: LOCATION-CUM-AGEWISE CLASSIFICATION OF IMPORTANT INDUSTRY GROUP FOR FEMALES
PERIYAR

Age Group	Total Workers		Cultivators		Agricultural Labourers		Manufg, Procs, Services and Repair: Household Industry		Manufg, Procs, Services and Repair: Other than Household Industry		Other Services	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Urban												
Total	141358	38526	6233	1339	9726	10665	5305	3117	40745	9804	19009	6367
0 - 14	3.16	7.66	1.41	3.66	6.74	8.15	3.13	8.89	5.43	12.65	0.79	3.25
15 - 19	9.13	14.16	5.37	6.50	13.97	16.02	10.74	15.72	13.66	22.26	2.45	5.07
20 - 24	12.83	12.44	9.00	8.96	11.56	11.72	13.40	12.86	16.54	15.49	5.21	10.49
25 - 29	15.19	12.63	10.24	7.39	11.71	11.28	12.78	13.47	15.01	12.26	13.77	16.48
30 - 34	13.53	11.24	8.92	9.11	8.89	10.00	10.57	9.34	12.49	9.78	18.70	16.27
35 - 39	12.08	12.72	11.37	11.13	10.27	12.30	9.76	12.96	11.04	10.02	16.30	16.88
40 - 49	18.27	16.09	19.89	23.23	17.59	16.22	19.08	14.05	14.56	10.47	25.68	19.66
50 - 59	10.53	8.90	15.42	18.52	11.48	9.68	12.16	8.85	7.85	5.11	13.11	9.02
60 +	5.29	4.13	18.55	11.43	7.75	3.73	8.39	3.88	3.42	1.99	3.98	2.87

Source: Same as Table 5.

characteristics as we saw in the case of Kanyakumari, namely there are substantial proportions of women working upto the age-group 25-29; thereafter there is a drastic fall in members in subsequent age-groups. While under the category 'Household Industry' the peak employment age-group for women is 15-19, the decline in numbers is not as dramatic as in the 'other than Household' category. In the case of Periyar, the lack of clarity regarding the existence and direction of the relationship between women's work and demographic behaviour may be due "not only to the nature of the employment and women's broader circumstances, but also to methodological inconsistency and simplistic analytic approaches. Available evidence is insufficient to determine whether women who enter the labour force bear fewer children than others or whether women with fewer children tend to have higher levels of labour force participation."[28]

6) Kanyakumari not only has the highest percentage of literate females in the state among rural as well as urban population, it also has the least percentage of child workers among its total child population unlike Periyar and the rest of the state. (Tables 8, 9, 10) Further, the educational level of the women in Kanyakumari is also above that obtaining for the rest of the state and way above what one finds for Periyar. For those interested in establishing connections between literacy and fertility, Periyar is an interesting conundrum; the rural areas of Periyar where female literacy levels are far below the urban literacy rates are precisely the areas where fertility rates are below those for urban areas.

What can one conclude about the demographic behaviour of Periyar and Kanyakumari from the above sets of data, particularly as regards the impacts of literacy levels and female work participation rates on reproductive outcomes? Several empirical investigations (even for India, as Sen puts it) have observed and confirmed the statistical relations between women's education and women's opportunity to earn an outside income on the one hand, and lower fertility rates on the other. Referring to a forthcoming statistical contribution using extensive district level data,[29] Sen points out that the only variables that have a statistically significant effect on fertility are female literacy and female labour-force participation. He therefore concludes that "the importance of women's agency emerges forcefully from this analysis, especially in comparison with the weaker effects of variables relating to general economic progress."[30]

To posit the paradoxical findings for Periyar and Kanyakumari against studies that provide evidence of a strong correlation between women's educational level and work participation rates, and fertility, is definitely not intended to question the role of school education or increasig outside employment for females as a force for social change.[31] On the contrary, it is aimed at stressing the need to avoid arriving at instant policy

conclusions from mere statistical contributions however significant they may be. A statistical correlation is only a first step; without a substantive indepth examination to determine exactly how and to what extent variables such as education, employment, kinship structures, marriage practices, property rights etc. influence women's autonomy (as defined by Dyson and Moore) and/or fertility rates, one could have any number of policy enactments (including those to 'enhance' women's status) with the ground level reality responding more to Johansson's 'implicit' policy changes rather than to the government's explicit fertility reduction programmes.

TABLE 8: DISTRICTS ARRANGED IN ORDER OF LITERACY RANKING IN 1991 CENSUS AND COMPARISON WITH 1981 CENSUS

Literacy Rank in 1991 (1)	State/District (2)	Literacy Rate 1991 (3)	Literacy Rate 1981 (4)	Increase of Literacy Rate 1981-91 (5)
	Tamil Nadu	62.66	54.39	8.27
1	Kanniyakumari	82.06	73.80	8.26
2	Madras	81.60	78.21	3.39
3	Chidambaranar	73.02	NA	...
4	Nilgiri	71.70	65.22	6.48
5	Madurai	66.41	NA	..
6	Chengalpattu-MGR	66.38	56.14	10.24
7	Coimbatore	66.35	59.97	6.38
8	Thanjavur	66.02	58.33	7.69
9	Tirunelveli - Kattabomman	65.58	NA	..
10	Pasumpon Muthuramalinga Thevar	63.04	NA	..
11	Kamarajar	62.91	NA	..
12	Ramanathapuram	61.59	NA	..
13	Tiruchirapalli	61.22	52.68	8.54
14	North Arcot - Ambedkar	60.87	NA	..
15	Pudukottai	57.63	46.02	11.61
16	Dindigul-Anna	56.68	NA	..
17	Periyar	53.80	44.86	8.94
18	Salem	53.31	44.67	8.64
19	Tiruvannamalai-Sambuvarayar	53.07	NA	..
20	South Arcot	52.86	43.85	..
21	Dharmapuri	46.02	34.43	11.59

NA: Not available.

Note: Literacy Rates have been Calculated on the Population aged seven years and above

Source: *Census of India,* 1991, Series-23, Tamil Nadu, Primary Census Abstract for General Population, Part II - B (i), Directorate of Census Operations, Tamil Nadu, August 1993, p 14.

V

Putting together the scattered bits of oral information that we have been able to collect on Periyar, we find that Periyar is part of a region which is not only agriculturally prosperous, but, one which in the last few decades has seen the emergence of some of the fastest growing towns in the state catering to the export market. There is severe competition for labour from both the towns and the villages; the towns in addition attract quite a large number of young female labour force. The fast changing nature of the economy and employment pattern of the region has led to changes in the agrarian structure of the region, including in the relationships that previously obtained between the landholding classes and the tenant farmers. How these changes have combined to create conditions for increasing female work participation rates but not literacy levels is as intriguing as the questions

TABLE 11: MARITAL STATUS : KERALA, TAMIL NADU VIS-A-VIS INDIA

Total/ Rural/Urban	Martial Status							
	Never Married		Married		Widowed		Divorced/ Separated	
	Male	Female	Male	Female	Male	Female	Male	Female
	as % of total male popn	as % of total female popn	as % of total male popn	as % of total female popn	as % of total male popn	as % of total female popn	as % of total male popn	as % of total female popn
India								
(Rural + Urban)	55.26	45.75	42.05	45.79	2.43	8.01	0.23	0.42
(Rural)	54.73	44.87	42.27	46.45	2.71	8.20	0.26	0.45
(Urban)	56.90	48.70	41.35	43.55	1.56	7.40	0.13	0.32
Kerala								
(Rural + Urban)	61.55	50.85	35.86	38.65	1.14	9.08	0.29	1.39
(Rural)	61.34	50.77	37.15	38.86	1.18	8.86	0.31	1.49
(Urban)	62.44	51.19	36.33	37.71	0.97	10.04	0.22	1.01
Tamil Nadu								
(Rural + Urban)	55.71	45.51	41.76	43.80	2.26	10.00	0.24	0.67
Rural All ages	54.77	44.58	42.33	44.30	2.58	10.35	0.30	0.76
Urban All ages	57.59	47.45	40.63	42.76	1.63	9.28	0.13	0.49

Source: Computed from Table C-1, Part IV-A, *Census of India, 1981*, Series I, India, Social and Cultural Tables. Office of the Registrar General, India, New Delhi.

raised by the Kanyakumari data, namely, contrary to expectations, why do widespread female literacy and delayed marriage, not result in increasing work participation levels for women? (As of now we have very little information on the overall nature of the economy of Kanyakumari). Additionally, we need to have some idea of the (changing) community composition, kinship structures, marriage practices, inheritance patterns, role of religion, in both the districts to

TABLE 9: LITERACY RATES (FOR POPULATION AGED 7 AND ABOVE) IN 1991
TAMIL NADU, PERIYAR, KANNIYAKUMARI

	Among the Total Population			Among the Rural Population			Among the Urban Population		
	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
Tamil Nadu	62.66	73.75	51.33	54.59	67.18	41.84	77.99	86.06	69.61
Periyar	53.80	65.54	41.58	47.56	60.00	34.65	73.06	82.57	63.08
Kanniya-kumari	82.06	85.70	78.39	80.76	84.56	76.93	88.36	91.29	85.44

Source: Census of India, 1991, Series-23, Tamil Nadu, Primary Census Abstract for General Population, Part II-B(i), Statement 5, Director of Census Operations, Tamil Nadu , p.12.

TABLE 10: SCHOOL ATTENDANCE OF CHILDREN
(AGE 5-14 YEARS)

	Tamil Nadu		Periyar		Kanyakumari	
	Males	Females	Males	Females	Males	Females
% of children attending school						
(R+U)	64.69	49.65	57.62	42.33	77.48	73.39
Rural	59.75	41.20	53.77	36.39	76.63	72.28
Urban	74.83	67.02	70.35	62.04	81.74	78.77
% of children not attending school						
(R+U)	35.31	50.35	42.38	57.67	22.52	26.61
Rural	40.25	58.80	46.23	63.61	23.37	27.72
Urban	25.17	32.98	29.65	37.96	18.26	21.23
% of child workers to total child population						
(R+U)	8.87	7.99	14.25	14.04	3.10	1.84
Rural	10.78	10.40	15.93	16.47	3.05	1.83
Urban	4.96	3.03	8.68	5.95	3.36	1.89
% of Non-workers not attending school to total child population						
(R+U)	27.00	42.00	28.00	44.00	19.00	25.00
Rural	30.00	48.00	30.00	47.00	20.00	26.00
Urban	20.00	30.00	21.00	32.00	15.00	19.00

Source: Census of India, 1981 Series 20, Tamil Nadu, Social and Cultural Tables. Part IV-A, Table C-4, Director of Census Operations, Tamil Nadu.

be able to assess how all these simultaneously impact in bringing about high fertility rates in the one and low fertility rates in the other district.

The assertion that women in Tamil Nadu have relatively more autonomy and are not subject to coercive family planning programmes (and therefore the fertility rates in Tamil Nadu are as low as they are) is highly problematic. Whether it is the autonomy of Periyar women that is responsible for their low rates (and vice versa for Kanyakumari) is difficult to ascertain from the secondary data presented here. While high fertility rates resulting from lack of autonomy is understandable and plausible, low fertility rates need not necessarily imply presence of autonomy for women.

The fact of more autonomy for women in the southern states, including Tamil Nadu, is generally based on data pertaining to female literacy levels, work participation rates, age at marriage, contraceptive prevalance rates, female-friendly kinship structures etc. Another set of data that is not simultaneously looked into is the marital status of the population. A quick look at the census data on this clearly show that the model states of Kerala and Tamil Nadu have relatively more percentage of women who are widowed, and, divorced/separated.(Table 11) In addition, according to the NSS data,[32] these states have more number of female headed households, when compared to the female-unfriendly states of the north. Whether divorce/separation constitutes enhanced autonomy for women (in that it enables them to opt out of oppressive mariage structures) again needs to be concretely established. Further, when the data on female-headed households is viewed in the context of the growing incidence of 'feminisation of poverty' in the country as a whole, it does raise questions about the circumstances and the conditions that ultimately make a couple arrive at the decision – either to have or not to have a child.

The issue of coercion needs to be dealt with at various levels. The fact that Tamil Nadu has not seen Emergency type coercive practices where groups of people particularly in the rural areas were herded into family planning camps and sterilised (largely vasectomised), cannot be the sole reason to come to the opposite conclusion that cooperation is the hallmark of the 'success' of the family planning programmes in Tamil nadu. Family planning programmes are based on assumptions about sexuality and gender that must be identified and challenged.[33]

In the first place we need to document very systematically what goes on in governemnt hospitals, and what is done by governemnt and govt-recognised private doctors, in the name of family planning. Our very limited interaction with NGOs active in this field in Tamil Nadu reveals that a large number of abortions take place

outside the formal system since very often the state through its family planning outlets tries to impose its own morality on women seeking abortions.

While the north has seen a change-over from vasectomy to tubectomy in the post Emergency period, in Tamil Nadu this change over has taken place without the state having experienced the Emergency-type of explicit organized violence on the family planning front. The much touted 'success' of the family planning programme of Tamil Nadu is anchored largely on the increasing number of tubectomies performed as part of the family planning programme. This, to us, constitutes a form of state violence on women.

In a field-based study of factors contributing to fertility transition in Tamil Nadu, Sundari Ravindran has collected very telling information on the 'successful' family planning programme of Tamil Nadu. To quote Ravindran:

> For the majority, family planning is synonymous with 'female sterilisation'. Information on how any of the methods work is practically unknown even among those who have adopted a method. And most important of all, the family planning programme's pre-occupation with promoting female sterilisation (and more recently, other female methods of contraception) may have only further reinforced and even considerably strengthened the notion that fertility control is exclusively a 'female concern'... Because women do not adopt spacing for fear of negative side effects, it is assumed that there is no option but for women to resort to abortion in order not to have an unwanted birth. Practice of contraception by men, either the condom or periodic abstinence – features nowhere in their realm of options![34]

Unravelling the processes by which a couple arrives at answers to the following questions would itself reveal whether women feel coerced or not to behave and act in particular ways: whether or not to have a child and, if so, when; whether to terminate a pregnancy because it is unwanted or because the foetus belongs to a particular sex; what form of contraception to practice, etc. Thus, coercion defined broadly, would capture the interpersonal power relations that affect sexual and reproductive outcomes.

Notes

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Maheswari and R Dharmaperumal for their painstaking effort in bringing out this paper. Needless to add, the usual disclaimers apply.]

1 Sen A 'Population Policy: Authoritarianism Versus Cooperation', The John and Catherine T MacArthur Foundation Lecture Series On Population Issues, August 17, 1995, New Delhi, (mimeo).

2 Ravindran, Sundari, T K 'Women and the Politics of Population and Development in India', *Legal Perspectives*, Documentation File No 31, Madras, p 7.

3 Savitri, R 'Fertility Rate Decline in Tamil Nadu: Some Issues', *Economic and Political Weekly*, Vol XXIX, No 29, July 16, 1994, pp 1850-1852.

4 In this context it needs to be stated that it is largely the rise of feminist scholarship that has given a new life and vitality to demographic research besides forcing a reconsideration of the role of state policy in fertility change. For a useful disucssion on fertility change from a gender perspective, see, Nancy Folbre, "Of Patriarchy Born" *Feminist Studies*, Vol 9, No 2, Summer 1983, pp 261-284.

5 The Ministry of Health and Family Welfare set up (by an order dated 19th July 1993) an Expert Group chaired by M S Swaminathan for preparing a draft National Policy on Population. The Expert Group submitted its draft to the above Ministry on May 21, 1994.

6 See in this context the following references:
(a) Demeny, Paul, 'Social Science and Population Policy,' *Population and Development Review*, Vol 14, No 3, September 1988, pp 451-79.
(b) Hodgson, Dennis, 'Orthodoxy: and Revisionism in American Demography,' *Population and Development Review*, Vol 14, No 4, December 1988, pp 541-69.
(c) Amalric, Franck and Banuri, Tariq, 'Population: Malady or Symptom', *Third World Quarterly*, Vol 15, No 4, 1994, pp 691-705.

7 For an elaborate discussion on approaches to population policy, see S Ryan Johansson 'Implicit Policy and Fertility During Development', Population and Development Review' Vol 17, No 3, September 1991, pp 377-441.

8 For an elaboration, see, Almaric, Franck and Banuri, Tariq, 'Population: Malady or Symptom', op cit.

9 Ibid, p 701.

10 Ibid, p 701-702.

11 Refer in this context, Dennis Hodgson, 'Demography as Social Science and Policy', *Population and Development Review*, Vol 9, No 1, March 1983, pp1-34, and the references cited in note (9) above.

12 Almaric, Franck and Banuri, Tariq, op cit, p 701.

13 This point and the paragraph immediately following below have been taken from V.Geeta and Padmini Swaminathan, "The Politics of Population and Development in India", *Economic and Political Weekly*, September 17, 1994.

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18 Ibid, p 315.

19 Kishor, Sunita 'Fertility Decline in Tamil Nadu, India', in Bertil Egero and Mikael Hammarskjold (ed): *Understanding Reproductive Change: Kenya, Tamil nadu, Punjab, Costa Rica*, PROP, Lund University Press, Sweden, 1994, pp 65-100.

20 Dyson, T and Moore, M 'On Kinship Structure, Female Autonomy, and Demographic Behaviour in India', *Population and Development Review*, Vol 9, Number 1, March 1983, pp 35-60.

21 Apart from Sunita Kishor, the 'female-friendly southern kinship' arguments finds its echo in the following article, among others, namely, John Caldwell and Pat Caldwell, "Patriarchy, Gender and Family Discrimination, and the Role of Women", in Lincoln C Chen, Arthur Kleinman and Norma C Ware (eds) *Health and Social Change in International Pespective*, Harvard Series on Population and International Health, Boston, Massachusetts, 1994, p 357.

22 Dyson, T and Moore, M 'On Kinship Structure,' op cit, pp 45-46.

23 Johansson, Ryan, S 'Implicit Policy and Fertilty During Development', *Population and Development Review*, Vol 17, No 3, September 1991, pp 377-414.

24 Ibid, p 381.

25 See *Census of India, 1991*, Series-23, Tamil Nadu, Primary Census Abstrct for General Population, Part II-B(i), Statement – 4, p 11, Director of Census Operations, Tamil Nadu.

26 Dreze, J and Sen, A: *India: Economic Development and Social Opportunity*, OUP, Delhi 1995, p 150.

27 Computed from data provided in *Census of India*, 1991, Series-23, Tamil Nadu, op cit.

28 Mahmud, S, and Johnston, Anne M 'Women's Status, Empowerment and Reproductive Outcomes', in Gita Sen et al, (ed) *Population Policies Reconsidered: Health, Empowerment and Rights*, Harvard Seies on Population and International Health, Distributed by Harvard University Press, Boston, Massachusettes, 1994, p 154.

29 Dreze J, et al, 'Demographic Outcomes, Economic Development and Women's Agency', Discussion Paper, Centre for Development Economics, Delhi School of Economics, 1995; to be published in *Population and Development Review*.

30 Sen, A 'Population Policy: Authoritarianism Versus Co-operation', op cit, p 18.

31 Ibid, Sen is critical of those, who have disputed the observed links between education and outside employment (for women) on fertility.

32 See *Sarvekshana*, Special Number, September 1990. Results of the Fourth Quinquennial Survey on Employment and Unemployment

(All India), NSS 43rd Round, (July 1987- June 1988), NSSO, Dept of Statistics, Govt of India, Statement 3, pp 18-19.

33 A very useful article in this context is Ruth Dixon-Mueller, 'The Sexuality Connection in Reproductive Health', Studies in Family Planning Vol 24, No 5, Sept/Oct 1993, pp 269-282.

34 T K Sundari Ravindran, 'Factors Contributing to Fertility Transition in Tamil Nadu: A Qualitative Investigation'. Paper presented at the Silver Jubilee Seminar of the Madras Institute of Development Studies, Madras, April 2-4, 1996, p 251.

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Technology, Competition and Costs of Medical Care

Some Emerging Issues and Policy Imperatives in India

V R Muraleedharan

The private sector plays a significant role in meeting the health care needs of the people of India. With increasing international drive for privatisation, scholars and policy-makers have been debating the efficacy of market forces in financing and delivering health care in developing countries. Containing costs of care has been an important concern in devising appropriate health care policy all over the world.

This speculative essay, is a summary of a body of evidence (drawn from the US) that addresses the question whether competition will contain costs of medical care, and improve access and outcome (Section II). It raises certain issues and questions that need to be examined empirically alongside issues that require explicit value judgment on the part of those involved in the production, distribution and consumption of health care. In Section III, is presented an argument for technology management and health promotion as two essential public policy measures, whether or not one believes in the efficacy of market mechanisms, to contain costs of care.

I

THE private sector plays a significant role in meeting the health care needs of the people of India.[1] With increasing international drive for privatisation, particularly since the publication of the 1993 *World Development Report* on health, scholars and policy-makers have been debating the efficacy of 'market forces' in delivering health care in developing economies. In India, the government is yet to explore the relative efficacy and costs of regulation and competition with specific reference to health care. To determine the appropriate mix of private and public sectors in financing and delivery of health care, we must address the following two questions:

1 Is there evidence in support of the argument that a competitive environment would force (or even encourage) for-profit health care providers to reduce the costs of care without compromising quality?;

2 Do we have evidence on the efficiency of the public sector and other not-for-profit health care institutions in India, and how do they compare with for-profit private health care organisations?

Ideally, answers to these two questions should provide a basis for the policy-makers in designing an appropriate health care policy. The debate on privatisation of health care market depends crucially on answers to these two quetions. There is no known study as yet in the Indian context to throw any light on the above issue. Given this fact, this essay seeks to answer the following question: Can we anticipate the likely impacts of policies that promote for-profit corporate hospitals on costs, quality and outcome of medical care, and thus be able to devise mechanisms to contain possible adverse effects of privatisation in India? We begin with a universal fact that the costs of medical care have been going up rather rapidly during the recent past – as mentioned above, there is no empincal estimate of the increases costs of care in India, but we have no basis on which to question this either. In fact, it is difficult to contest this common impression. Besides, there is a large body of evidence (as we shall see later in this essay) that under certain market conditions such as those found in India, costs of care is likely to increase due to intense non-price competition amongst providers. Given this common observation, we face two interrelated questions: (a) what are the causes for the increasing costs or care, and (b) what can we do to contain costs of care?

There is a general consensus among scholars that technological change substantially contributes to the increasing costs of medical care.[2] What is not so readily agreed upon is the extent to which new medical technologies in a competitive market environment have influenced physicians behaviour and the interests of their patients, and how far this has resulted in higher costs of care. The general debate on whether and to what extent we should rely on market forces in delivering medical care is bound to contihue, perhaps more intensely so in future. In the meanwhile, corrporatisation of the health care industry and joint-venture facilities have begun to attract the attention of the policy-makers and providers of health care in India as the most 'efficient' mode of delivering health care. while investor-owned (for-profit) hospitals are increasing to numbers, physicians are also increasingly becoming the owners of health care facilities (we have no official figures on how many of the private hospitals are owned by physicians in India, but it is safe to say that the number is substantial). Thus, on the one hand, questions have been raised from various quarters that cast doubts on the physicians' role in increasing costs of care, while on the other hand it has become more and more difficult to evaluate medical technologies.

In this essay I present a survey of studies that question the belief that competition will contain costs of medical care as well as improve access

and outcome (Section II). The survey covers only the experience in the US, where much empirical work on this issue has been carried out in the recent past. I then raise certain issues and questions that need to be examined empirically alongside issues that require explicit value judgement on the part of all those involved in the production, distribution and consumption of health care. Many recent empirical studies support the view that technologies under certain competitive market conditions because of the inherent difficulties in assessing their benefits and costs, provide scope for physicians to over-use medical procedures and thus contiribute to increases in the costs of medical care. While it is extremeiy important but difficult to come to a definite conclusion on 'issue, we should ask ourselves as to what we can possibiy do in order to contain costs of medical care from the point of view of the individuals issue various providers, and policy makers. In Section III, I argue for technology management and health promotion as two essential public policy measures, whether or not one believes in the efficacy of market mechanisms, to contain costs of care.

II

An important question that economists in general and policy makers in India in particular, should address themselves to is: what is the economic behavior of investor-owned (for-profit) hospitals in India? More specitically, we can pose the following questions: How do investor-owned and not-for-profit public sector hospitals compare in terms of costs of care per admission? How do they compare in their use of the medical procedures? To what extent are their use of various medical procedure influenced by financial incentives? Does ownership have any direct effect on the costs of care obtained? Are there differences in quality of care obtained? In essence we are asking, can we account for the differences in costs, quality and outcomes of medical care obtained in various types of hospitals in India? With the existing data base on health care in India, it is not possible to answer with any reasonable certainty any of the above mentioned complex questions. However, a number of empirical studies conducted in the US in the recent past provide a basis for us to speculate on what we may expect in the Indian medical market. Our response to the above questions is therefore tentative, and should be considered as hypotheses for further research for scholars concerned with designing better health care system for India.

Recent studies on the behaviour of for-profit hospitals add to the growing body of evidence that 'self-referrals' lead to overuse of services and excessive cost. "Self-referral is the term used to describe a physician's referral of patients to an outside facility in which he or she

has a financial interest but no professional responsibility."[3] Mitchell and Sunshine, based on their comparative study of joint-ventures with other facilities providing radiation-therapy services in Florida in the US, report that 40 per cent of all practising physicians are involved in some kind of self-referral.[4] They observed that self-refferal in radiation-therapy was associated with increased use and costs. Swedlow et al's study on workers in California also found that self-referral increased the rate of use and cost per case of physiotherapy and increased the cost of psychiatric evaluation.[5] Further, they observed that inappropriate use of magnetic resonance imaging was more frequent among the patients cared for by self-referring physicians, although there was no difference in the cost per case. Hillman et al's study on differences in physicians' practices with respect to diagnostic imaging compared the frequency and cost of imaging examinations as performed by primary physicians who used imaging equipment in their offices (self-referring), and as ordered by physicians who always referred patients to radiologists ("radiologist- referring").[6] Their study also led to the conclusion that for all clinical representations "the self-referring physicians obtained imaging examinations 4.0 to 4.5 times more often than the radiologist-referring physicians." Further, they observed that self-referring physicians charged significantly more than the radiologist for imaging examinations of similar complexity. The combination of more frequent imaging and higher charges resulted in mean imaging charges per episode of care that were 4.4 to 7.5 times higher for the self-referring physicians. Pattison and Katz in their attempt to explain the rapid growth of investor-owned hospitals found that (a) both costs and charges were higher in for-profit than in not-for-profit hospitals; and (b) the for-profit hospitals have used "aggressive marketing and pricing strategies" to generate high rates of profitability and growth.[7] To put it differently, the for-profit hospitals have been success in generating higher net income for their owners, not by operating less expensively but by virtue of charging more per admission. Similar conclusions were reached by Watt et al based on a comparative study of the economic performance of 80 matched pairs of investor-owned chain and not-for-profit hospitals in eight different states in the US, during 1978 and 1980.[8]

None of the studies cited above can claim to be comprehensive or definitive, but taken together they seem to provide a coherent and persuasive description of the average economic behavior of investor-owned vis-a-vis not-for-profit hospitals and the consequences of physicians' ownership of health facilities. As a result, they also form a reasonable basis for questioning the claim that investor-owned/joint ventures hospitals would improve access to care and also would lead to greater economic efficiency.[9]

It is interesting to know how the American Medical Association reacted to this mounting evidence of excessive costs and rates of use in jointly-owned for-profit facilities. In tracing briefly the response of the AMA, I believe, there is a lesson fbr the counterpart institutions in India. In December 1991 at its annual meeting, the AMA officially ackowledged the negative consequences of physician practice of self-referrals to facilities in which they have financial interests. The AMA as a result strongly advised physicians to avoid self-referrals, "except wnen there is a demonstrated need in the community for the facility and alternative financing is not available". The following words of the Council on Ethical and Judicial Affairs of AMA, reflect their stand in this regard.

> At the heart of the Council's view of this issue is its conviction that, however others may see the profession, physicians are not simply business people with high standards. Physicians are engaged in the special calling of healing, and in that calling, they are the fiduciaries of their patients. They have different and higher duties than even the most ethical business person... There are some activities involving their patients that physicans should avoid whether or not there is evidence of abuse.[10]

But within the next six months by the middle of 1992, the AMA operating under different pressure groups passed a new resolution declaring self-referral to be ethical as long as the patient is fully inforrmed about the physicians financial interest in the facility.[11] The AMA justified its change of stand by saying that a policy that prohibits self-referrals would limit access for many patients to necessary health services. The proponents of the new resolution also claimed that "the great majority of self-referring physicians, who do not abuse their patients' trust, were being penalised because of concern over the few who did."[12] The foliowrig comments of Reiman on the adoption of the new resolution by the AMA, reflect the growing dissatisfaction over the prevailing practices within the medical community' in the US, a large section of which strongly believes in the efficacy of the free-market approach to delivering health care:

> As for distinguishing between physicians who abuse self-referral and those who do not, there would be no way to do that without prohibitively expensive and intrusive surveillance of the private practices of all physicians who practice self-referral. Besides, the argument that self-referring physicians should be trusted unless they can be proved to have abused that trust misses an essential point about juduciary responsibility: people in important positions of trust should not put themselves in situations that inevitably raise questions about their motives and priorities, regardless of whether they actually behave to accordance with that trust.[13]

In fact, in addition to self-referrals, there is also a need to have a close look at the 'deals' between physicians and the manutacturers or medical devices, and a wide variery of other kinds or joint ventures between

physicians and the facilities in which they treat their patients. It is common knowledge in India, particularly in metropolitan cities, that private (small and large) hospitals give a part of their fees collected from the patients to the physicians who refer them to their facilities. It is difficult to establish the extent to which it is being practiced, but an estimate of it would certainly be useful to the policy makers in judging more accurately the nature of measures required to regulate the private sector.

The subject of industrial marketing and medical ethics has always worried health policy makers. It is said that the relationship between medicine and industry is a "marriage of convenience and necessity". As marketing is an essential part of the industrial process, physicians (because they determine the use of medical products in the care of patients) thus become the direct marketing target of medical-service companies which are competing actively to sell their products. While medical-service companies may have their own ethical guidelines, they often tend to go beyond the ethical boundaries of physicians. As Reiman puts it, "physicians have an obligation to preserve their patients' trust. It is an obligation quite different from, and often incompatible with, the relation between sellers and buyers in a commercial market."[14]

But the practice of 'kick-backs' and active involvement of the medical profession in promotional exercises of the products of the industries wil continue, and perhaps become common in the future. The enticements and bonuses offered to the medical profession by the competing companies can no longer be said to be free of any motives. They in the long run add to the costs that are passed on to the consumers, namely the patients. As Rawlins noted in 1984:

> Few doctors would accept that they themselves have been corrupted. Most doctors believe that the are quite untouched by the seductive ways of the industry's marketing men; that they are uninfluenced by the promotional propaganda they receive; that they can enioy a company's "generosity' in the form or gifts and hospitality without prescribing its products. The degree to which the profession mainly composed of honorable and decent people, can practice such self deceit is quite extraordinary. No drug company gives away its shareholders' money to an act of disinterested generosity.[15]

Several factors have been identified as being responsible for the tendency among physicians to offer medical care more intensely than warranted. These are plausible explanations. In the Indian context each requires an empirical verification of the extent of their influence. Let us consider some of them briefly.

(a) It is a generally observed phenomenon that the fear of malpractice tends to increase the intensity of medical care offered by the physicians. In fact, in economies where patients have easy access to consumer fora and courts, the physicians have learned to practice expensive defensive medicine fearing law suits. As yet this has not become a major problem

in India. But with consumer protection groups increasingly playing an active role in protecting the interest of the consumers and the prospects of private insurance companies protecting the providers from malpractice claims, defensive practice could to become common in India. Increases in malpractice claims are also likely to increase the costs of malpractice insurance.[16] This in turn tends to push costs of medical care. Thus while malpractice claims on the one hand may at least partially compensate patients' loss of life or well-being caused by inappropriate medical interventions, they are on the other hand likely to escalate costs of care and bring about certain undesirable systemic changes in the provision and financing of medical care. This is very much a likely scenario to be witnessed in India too, if corporate, for-profit hospitals continue to grow unregulated as they are now.

(b) Another important contributor to the increasing costs of medical care has been the agressive medical culture itself. This refers to the narrow, mechanistic, technologically and biomedically defined version of medical science. Several scholars have written extensively on this subject. This has led to signifcant behavioural changes among the physicians to such an extent that, as Kassirer puts it,

> physcians no longer tolerate uncertainty and thus pursue diagnostic certainty beyond clinical usefulness. Some tests do provide some what different data, and certalnly not all duplicate testing is redundant but many tests are carried out merely to confirm a diagnosis that is virtually certain. Because of this, duolicate testing has been described as "belt and suspenders" approach – namely, one in wnich both are worn at the same time.[17]

(c) Finally, in excplaning the increasing costs of medical care, we come to consider an issue wrich is perhaps the mcst controversial. This relates to the role of specialists, and the extent to which their services could effectively be offered by primary care physicians. It is worthwhile mentioining here some of the important studies that ought to be considered by policy makers, particularly during a period when we are passing through an era of severe budgetary constraints. Manu and Schwartz,[18] and Garg, Mulligani, Gliebe and Parekh,[19] among many others, have observed that primary care physicians tend to deliver less intense care for specific conditions than specialists. Franks, Clancy and Nutting in their review of studies comparing primary care physicians with specialists in the US observed no difference in quality of care or outcome.[20] The literature on the effects of physicians' practice style on the outcomes of care is limited. It is extremely difficult to conduct studies large enough to detect small but clinically important differences in outcomes or to control adequately for the confounding factors. But the available studies seem to sup port the view that "the primary care physician are more likely than specialists to provide continuity and comprehensiveness", resulting in imoroved outcome in patients at all ages.

The improved outcome include higher birth weight in newborns; more preventive care a reduced risk of hospitalisation and reduced morbidity in children; a reduced risk of hospitalisation in the elderly.[21]

While Lurie et al's study suggests that patients who lost access to primary care physicians had measurable declines in their health[22], other studies suggest that the quality of care provided by specialists outside their specialities declines.[23] It is estimated that in the US nearly 20 per cent of primary care is delivered by specialists. It is likely to be higher in India. The moot point is whether specialists tend to offer care more intensely than necessary, as compared to primary care physicians. Some results suggest that the 'primary care physicians may centiry atients wno are not appropriate candidates for a procedure more effectivejy than the specialists, who performs the procedure."[24] The implication of these studies is again obvious: that the increasing number of specialists, if left uncontrolled, would tend to raise the costs of care more than necessary, and that it is therefore necessary to increase the number and role of primary care physicians in order to contain costs of care. To put it differently, existing studies suggest that more specialists in the medical market would lead to the risk of overtreatment. Paradoxically, as Frank, Clancy and Nutting observe, "the poor, whose access to care is limited, may have more to gain from health than others", since it is the rich who have greater access to medical care. The rich are more likely to receive the more intensive care offered by specialists, and are therefore more likely to undergo invasive procedures![25] Some scholars, in fact, have found a direct correlation between income and rates of surgical procedures in the US medical market.[26] While higher income may improve access to care, it may also increase the risk of receving excessive care.

How do investors in health care industry in India make decisions about how much to invest, on what to invest and when to invest? In the light of the findings of the above mentioned studies on the consequences of investor-owned hospitals on the costs and (questionable) utility of certain medical procedures, one wonders what must be happening in countries like India where corporate enterprises have slowly begun to play a significant role in the medical care industry. This issue assumes greater importance, given the fact that private (both corporate and non-corporate) hospitals are practically unregulated in India.[27]

There is a vast literature on the decision-making process in hospitals, higihlighting the role of both financial and non-financial fators in determining the level of investment. Essentially, they point out that both the changes taking place at the macroeconomic level as well as within the health care system determine the investment behaviour of hospitals.[28] Sukanya's study on the investment behaviour of private (corporate and non-corporate) hospitals in the city of of Madras reveals that investment on medical equipment alone constitutes about 50 to 60 percent of their

total investment on various fixed assets.[29] She observes that while there is a certain uniformity in the capital investment pattern of many hospitals (in the sense that they allocate a major portion of their resources to medical equipment), there are differences in the distribution of resources allocated to various medical equipment. This is explained by the size, competitive strength and ownership pattern of hospitals (i e, whether it is a sole proprietor, or partnership or corporate hospital). Sukanya's study also reveals an interesting pattern of investment behavior over time of private hospitals in Madras city: "all non-corporate hosoitals start with investing in surglcal equipment. As they grow, they begin to invest in laboratory equipment or imaging equipment and later invest in intensive care and therapy investment."[30]

While the investors may explain variously why the invested as much as they did in different medical equipment and its sequencing, what is of importance to policy makers, as already noted, is to assess and account for the extent to which the cost of care varies across regions and types of providers. In explaining the variations, we may hopeflilly be able to identify the 'culprits' for the inappropriate and excessive use of facilities and medical procedures.

For many people, to question the increasing role of technology in medical care is blasphemy. The popularity of medical innovations is so immense, as Russell observes, "that in the emotionally charged atmosophere of medical care, the momentum of a new technology often puts the burden of proof on those who question the evidence for it, rather than on those who propose it."[31]

What I would like to argue here is that it is not as important to estimate accurately the extent or overtreatment or excess use of medical procedures, as it is to realise the existence of such phenomena under certain economic environments, in order to regulatory mechanisms to curb such practices. To control the increasing costs of medical care delivered to the people (and therefore contain expenses incurred by the state in the long run), I shall outline two important public policy measures that have become part of the health policy making process in many developed and developing countries. They relate to (1) making technology evaluation an integral part of the health policy making process, and (2) according a high priority for health education programmes as a strategy for promoting good health.

III

(1) Assessing medical technologies poses a number of difficulties, particularly at a time when costs of medical care have become the most serious concern of the policy makers in the government. In a competitive market economy, where insurance companies and employers are likely

to pay increasingly for costs of medical care, technologies are being evaluated for the extent to which they can restore the functional ability of patients.

It should be noted at the outset that medical technology assessment does not stop with performing only a randomised controlled clinical trial. The range of outcomes of interventions has been expanded to include, apart from safety and efficacy, the functional status, emotional health, social interaction, cognitive function, degree or disability, etc. To put it differently, technology assessment now encompasses the measurement or effectiveness, consideration of quality of life and patients preferences, and especially the evaluation of costs and benefits."[32] The randomised controlled trials have not provided information on all of the above aspects of medical care. It is also not clear whether it can potentially handle such diverse range or dimensions of medical care evaluation. Evaluating health technology in a broader framework as mentioned above poses a number of difficult methodological problems. Perhaps, the most difficult one is imputing value to various outcome status.

As Fuchs and Garber put it,

> even a well executed assessment may not resolve whether a form of technology is worth using, because they stop short of assessing what a change in health is worth in dollar terms.
>
> From a payer's point of view, an intervention must be cost effective, meaning that its health benefits are commensurate with the benefits from interventions of equal or lower cost.
>
> Although technology assessment often includes an analysis of cost-effectiveness, it cannot tell us how much we should be willing to pay for a given health effect. That would require explicit value judgments, which are eschewed in both the old type of technology assessment and much of the new.[33]

Another demanding aspect of the technology assessment process has been the need to incorporate patients' preferences as well into medical decisions. Over the recent past there has been a tendency among the policy makers to develop standardised and codified guidelines for making clinical decisions. It is well known that different patients view outcomes differently. Also, their preferences change over time and they do not always behave 'rationally'. Some scholars view that, even though it is difficult to capture the true state of patients' attitudes toward outcomes "a policy that explicitly considered how patients viewed outcomes would probably be better than one based on the implicit assumptions of a consensus panel."[34] Because medical decsions have to be often individualised, 'it is essential to identify' decisions in which it is especially important to consider patients' values and to protect such decisions from intrusive external decision making.[35] Assessing patients'

preferences and also identifying which decisions require the most patients' preferences acquire importance in the light of increasing costs or care.

This essay is not a commentary on the methodologies for assessing technology. The above brief comments are made only to underscore the fact that technology assessment in medicine has and will become more complex and more demanding as a result of several socio-economic factors, including the increasing expectations of the people on what medical science can and should accomplish. Also, from policy makers' point of view it is essential to keep in mind the significant changes in the ways in which health technologies are being evaluated. Such an awareness of new developments will hopefully guard them from offering inappropriate policy prescriptions for containing costs and for improving access to care. While malpractice and other socio-economic factors may make it difficult for the policy makers to contain costs of care, it can be argued that through a regulatory body (an Office of Health Technology Assessment), it is possible to exert influence at the point of introduction of technologies. It is useful to make a clear distinction between controlling acquisition of new technologies and controlling their use. They require rather different approaches. In this essay, my purpose is to highlight only some of the fuzzy areas in medical technology management that should be of concern to health policy makers. It is naive to assume that the rational diffusion of new norms of technology will be easier to achieve under a monolithic state health care system. A study of medical technology management in Canada led Linton and Naylor to conclude that,

> Powerful interest groups legitimately promote the continuing diffusion of new procedures and programmes, and tension increasingly develops between the competing imperatives of controlling costs and providing high-quality health care. Incomplete data, the absence of clearly defined objectives for philosophical differences within the medical profession all contribute to the difficulties of technology management.
>
> In this arena medical organisations that participate in decision making run the risk of generating division in the profession; in particular, academic physicians in subspecialties may feel both offended and threatened by the issuance of guidelines for medical practice.[36]

Many studies have also shown that transfer of technologies from the developed to developing countries have often yielded disappointing results, largely due to failure on the part of the decision makers to recognise unfavourable factors or other deficiencies in advance.[37] In fact many recent studies (some of which we referred to in Section II) have questioned the usefulness of many medical procedures/technologies developed in the west, even after they have been tested for their safety and efficacy. This is largely explained by the increasing concern for

costs containment. [It is also not uncommon in the western countries to hear about medical procedures of unproven effectiveness being practiced widely]. In most developed countries, as a part of cost-containment strategies, there is already in place or efforts are being made to establish a body for technology assessment and to regulate use of expensive medical equipment (in public and private sector).[38] In India as in many other poor countries, due to lack of any regulatory mechanism to assess health technologies, policy makers have no means to assess their contribution to overall increase in costs of care and also their utllity and cost-effectiveness. As a result of the liberalisation policy in India we may soon see an increase in the import of modern high cost medical technoIogies. There is thus a *prima facie* case for health technology assessment in India.

The broad aim of health techology assessment is to indicate the conditions under which a technology can be purchased, used and maintamed. As Perry and Marx argue "in order to decide whether a health technology is suitable for introduction into a developing country it is first necessary to assess "both it and the infrastrucrural conditions in which it would have to function".[39] But merely assessing technologies alone will not do, "the major challege is to develop a policy structure that can controi technology".[40] It is a well known fact that often technologies are acquired without giving much thought to operating and maintenance costs. In many of the government hospitals in India, it is not uncommon to see medical equipment lying out of order or unutilised due to lack of proper maintenance, or used in unexpected ways. K P Mathur's (1988) report on three governmnent hospitals in Delhi is replete with examples in support of the above observation.[41] Due to difficulties in maintaining medical equipment in public hospitals, the government of Tamil Nadu has allowed the Electronic Corporation of Tamil Nadu to operate and maintain certain modern diagnostic facilities in five hospitals in the state.[42]

Several kinds of uncertainties are associated with evaluating medical technologies, particularly the new ones, as they are introduced into the marketplace. They relate to production process, performance characteristics, estimated rates of change in component technologies, clinical effects for specific conditions, costs and size of market, etc.[43] Ultimately they determine "the size and composition of current and potential market and thus about the expected rate of market penetration and the probable return on investment.[44] These factors in turn influence pricing policies.

Of late there has been a growing recognition of the need to conduct economic evaluation alongside potentially influential trials or new procedure or a new medicine at the premarketing stage. This is due to the fact that often new technologies diffuse widely through the health

care system before systematic evidence on costs and benefits is available. As a result, it becomes more difficult to devise effective measures for a more rational diffusion and use of health technology.[45]

In fact as Bryan Jennet foresees, technology assessment itself may soon come to be considered a competitor for restricted resources available for health services.[46] This is so because of the fact that they are very costly to carry out. Longitudinal clinical trials are costly to conduct. Economic evaluations which go beyond clinical evaluations therefore cost a lot more. But they are essential. To put it in Bryan Jennet's words.

> Someone, somewhere has to face up to comparing hernias with hips and kidneys with hearts, to making value judgments that cannot be undertaken by computers or bureaucratic machinery. There is no other way to judge the wisdom of a value judgment than by awaiting the outcome of decisions based on it and then making a value judgrnent about this.[47]

It is thus suggested that a periodic evaluation of health technologies in terms of safety, efficacy, effectiveness, and cost-effectiveness should be of value to policy makers to make decisions on the allocation of resources, and also to understand the capacities and needs of their health care system. The health policy of India (1983) does refer to the need for developing appropriate health technologies, but it does not spell out how such an objective can be achieved. All over the world there is now a growing concern for developing methodologies for evaluating medical technologies, in order to help public policy makers in allocating scarce resources among competing medical care interventions. Indicators such as Disability Adjusted Life Years (DALY) and Quality Adjusted Life Years (QALY) are two examples of the recent developments in evaluating the relative cost ettectiveness of various health care technologies and intervention strategies.[48]

(2) It has been observed by many scholars that the bulk of the burden of illness and the associated costs is accounted for by preventable illness. In a developed country like the US preventable illness accounts for about 70 per cent of the total burden of lliness and costs of care.[49] Even if one were to assume a corresponding figure of only 50 per cent for India, the costs averted would still be enormous. There is hence a *prima facie* case or advocating health promotion programmes.[50]

A large number of studies have recored positive effects or advocating health promotion progrmmes. It is a well recognised fact that lifetime medical costs are cioseiy linked to health habits. For example, studies have shown a statstically significant assocation between smoking habits and overall morbidity; the overall morbidity was higher by 60 per cent among the smokers.[51] Wennberg's study strongly supports health promotion programmes that help educate consumers in making informed decisions.[52] He says when patients are given information and alternatives they have shown on average, to select less invasive (and less expensive)

strategies than their physicians. In an earlier study he observed that admission rates in hospitals correlate with the number of hospital beds per capita rather than the incidence of illness.[53] Such observations should not surprise us, given the fact that investor-owned hospitals, and the consequent practice of self-referral are not regulated adequately.

Health education programmes have been shown by many studies to reduce the cost of care to the patients and other payers of health care. Through such programmes self-management can be encouraged to a certain extent, which in turn can reduce use of (rather dependence on) health services, thus resulting in some savings.[54]

More particularly, there is a growing literature on the benefits of well-formulated health-promotion programmes in terms of reducing health care costs in the workplace. The effects are seen in the substantial reduction in the number of sick days, outpatient costs, hospitalisation costs, etc.[55] Some of these studies have used randomised control groups in simliar plants or facilities for soundness of the experimental design. The savings made through such programmes are confirmed through an analysis of claims data. There are also other ways of reducing costs of care to the society as whole, and for the individuals as well. What the existing studies clearly show is the potential of the health-promotion programmes to improve both physical and financial health. The central goal of these programmes is the improvement in health habits. Of course, widespread dissemination of such programs will cost money, but in the long run these costs will not be as large as what we would end up spending ultimately for many curative services. Available data seem to suggest a lag of two to three years between improvement in health habits and signs of better health and reduced costs.[56] As with any other programme, the costs of such programmes should be borne by those who benefit through savings. What is required, as Fries et al, put it:

> is a widespread conviction that appropriately designed programs directed at reducing need and demand can actually save money. [But] advocates of health promotion have themselves caused delays, first by not making cost reduction a primary goal and second by neglecting rigorous economic evaluation... [Also] it can be argued that academic conservatism has held preventive policy to a more stringent standard of proof than that generally applied in other areas of health policy.[57]

The ICMR-ICSSR joint report in 1981 also emphasised that many of the health problems of the poor can be solved to a large extent through health education.[58] They relate to messages on sanitary disposal of excreta and waste water, control of vectors, use of protected water, encouragement of breast feeding, maintenance of good personal hygiene etc. The report argues that people can be taught to manage man debilitating infections such as tuberculosis, hookvorm, malaria, filariasis leprosy, etc. The report thus observes:

Simple health messages communicated effectivey can produce excellent results in all such cases. and on the basis of cost-benefit considerations, health education can be a very effective input to raise their health status.[59]

In India State Health Education Bureaux have been established with the responsibility of educating people on a number of health promoting activities. Besides, every national programme concerned with control or eradication of communicanble diseases and with family planning, has an education component as well. But despite this enormous input and impressive administrative set up for health education, health attitude of the people have hardly changed and the programme has hardly made any impact on the situation.[60]

Health education can no longer be justified purely on humanitarian grounds. They play a complementary role in the delivery of health services, be it curative or preventive. It is a part of preventive as well as promotive strategy. It is true that preventive medicine is not always cost-effective from the point of view of either the society as a whole or the individual. But, in many instances, as some of the studies noted above show preventive medicine is cost effective and more attractive in terms of its net benefits than many forms of rescue medicine.[61]

Concluding Remarks

We began with an observation of the universal phenomenon that the costs of medical care have been going up rapidly over the last few decades. We thus are faced with two important questions: (a) what are the causes for the increasing costs of care? and (b) what can we do to contain them? Many scholars have analysed the question of "why various cost-control strategies in market economies have not been successfully in the past",[62] Some of the reasons are to be found in the nature of the market system that encouraged the transformation of physicians into a class of manager-physician-entrepreneurs. Some others have blamed the unholy alliance between the government and the medical profession in encouraging peoples' dependence on private medical services.[63] Some scholars suggest why blending market mechanisms with regulations is necessary in containing costs of care.[64] While studies in future will throw further details of physicians' behavior under different market conditions, it is necessary to reflect on the implications of what we are beginning to observe and how we may have to institute different mechanisms to develop a better health care system. I have attempted in this essay (a) to put together evidence that throws some light on the behaviour of this new class of entrepreneurs, and how as a result we are facing certain basic issues primarily ethical in nature, that restrict access to appropriate care; and (b) to indicate certain policy measures by which costs of medical care could be better contained.

It is important to mention here two widely prevalent 'myths' (particularly among the policy makers): one is that greater access to better medical care and containing cost of care do not go together. To put it differently, if you are to have the finest medical care system, be prepared for high costs. The second myth (some would call it 'public expectation') recognised by many scholars, is that high technology is essential for improved health and longevity. There are several examples (of community-based health care projects in India as well as other parts of the world) which explode these myths.[65]

Policy lessons emerge and can be learnt not only from our own past mistakes and achievements, but from the experiences of developed economies as well. The recent developments in the medical care market in the US have a clear lesson for the health policy makers in India. While there are forces that seem to be pushing up the costs of medical care beyond our control, there are also ways and means that are well within our reach and control that can be used effectively to reduce costs or care and thus effect some savings for the society.

Notes

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Target-Free Approach: Some Missing Links

K Sasikala

However sincere the government's intentions to do away with the target-free approach, the manual published for that purpose exhibits lacunae which are probably a result of inadequate comprehension of the new thinking.

FOR nearly three decades population policies and family planning programmes in India have been making women their objects without considering the role of 'sexuality' and 'gender' issues. Post-ICPD period represented a conceptual shift from the concerns of 'population growth' to one of 'reproductive health'. Shifting the emphasis from target-orientation to individual needs, the Platform for Action has emphasised the life span approach for women.

In response to the commitments made at Cairo and Beijing conferences, after nearly one year, the Govemment of India has come out with the 'target-free approach'. Reproductive health care has been equated with the target-free approach. From April 1996, the family welfare programme is supposed to be implemented all over India on the basis of this approach. In keeping with the changeover to the target-free approach, the ministry of health and family welfare, in consultation with the family welfare secretaries and directors of the states as well as management experts and experts from the family welfare department, has prepared a manual to highlight this approach. The objective of this manual is to provide guidance on decentralised planning to the ground level staff and enable them provide quality care as per the requirements of the community. Regional consultations have taken place with NGOs and other interested sectors in different parts of the country under the auspices of Chetna and Health Watch. A critical review of this manual vis-a-vis the intended objectives is made in this article and an attempt is made to focus on vital links that need to be borne in mind for policy / programme implementation.

The contents of the manual on target-free approach are truly not reflective of its title *Decentralised Participatory Planning in Family Welfare Programme*. A predominant part of the manual focusses only on the performance evaluation of the para-medical team, particularly the ANM, in a structured format. The stated objective of the manual, namely providing guidance on decentralised planning at the level of the PHC and improving the quality of health care is not adequately fulfilled. So

is the case with the adopted meaning of decentralised planning which is to be, "close association of the community and its leading lights and opinion leaders in the formulation of the PH C-based family welfare and health care plan". The document is conspicuously silent on the actual strategies or means of operationalisation of decentralised planning of health care.

The venture appears to be 'old wine in new bottle'. Not only has the document failed to emphasise change from a segregated approach of family planning (FP) and maternal and child services (MCH) to an integrated approach of reproductive and child health (RCH) services, but it also seems to have taken a narrow view of the concept of integrated health. Even though the issues of STDs and RTIs are discussed, the emphasis has not shifted from FP and MCH areas. Critical health care needs have not been addressed. For instance, tuberculosis (TB), one of the major causes of deaths in India, is also a serious health hazard for women. Ideally the integrated approach should encompass 'comprehensive primary health care' needs of all men, women and children covering the preventive, promotive and curative aspects. To recall, the rationale behind the integrated programme of health and family welfare, introduced during the 1980s, was that health and family planning are mutually inter-dependent and reinforcing. One cannot lose sight of the linkage of the basic needs such as safe drinking water, environmental sanitation and prevention and control of communicable diseases (e g, malaria and TB) with the health care of women and children.

While the needs of urban health sector are missing in the document, a few other lapses of the manual also need a mention. Attention has not been paid, even while dealing with reproductive health, to other gynaecological problems such as menstrual disorders, adolescent reproductive health problems, etc. Only a passing mention has been made about the problems of breast cancer and infertility. Again, under 'contraceptive services', indigenous or traditional methods of family planning are just nominally mentioned without relating them to the aspects of decentralised planning, quality of care and performance of PHC staff. Similarly, in the sections on 'Requirement of the Area vs. Felt Need of the Population – Sub Centre Action Plan' and 'Reducing Unmet Need', neither the concept nor the methodology indicated for assessing the felt needs reflects comprehensive health care. On the contrary, the discussion appears to provide a tilt towards a status quo in FP and MCH areas.

In a decentralised system, with emphasis on quality of care, provision of comprehensive, integrated primary health care (inclusive of RCH) calls for major steps like budgetary re-allocation for health sector – particularly at the ground level. This in turn means certain changes in the

structure as well as control of resources through panchayat raj bodies. In this context, involvement of women members of the panchayat raj in the planning of health care for women as well as monitoring of female staff could be more effective. The manual does provide a positive signal in this direction with the mention of "participatory approach with the Panchayat Raj leaders at PHC level". However, what is needed is to concretise and expand the scope of involvement of the local bodies in the primary health care.

The focus of the new National Family Welfare Programme is stated to move from target-based activity to "client-centred, demand-driven quality services programme". However, the translation of such a rhetoric into action requires political and bureaucratic will and commitment. Ensuring 'quality of care' in a decentralised framework necessitates, among other things, provision of better infrastructure at the service delivery point and improving the service conditions of the health staff as a minimum. A number of studies reported that PHCs lack even simple accessories like cotton, spirit, spirit lamps, sputum cups and facilities like examination tables and pucca buildings for housing the sub-centres. In several regions, lack of spirit and sputum cups which are used for collecting samples to diagnose T B have forced the staff to remain inactive and to do only referral services. Basic equipment, supplies of high quality medicines and transport facilities and availability of medical personnel – particularly lady doctors and ANMs – are lacking. It is well known that the posts of female doctors and ANMs remain vacant in several villages all over India. Rural health services failed to attract these medical personnel for the obvious reason that these areas are without the basic infrastructure. It is also closely linked with the service conditions of the rural staff. For instance, lack of promotional avenues leads to the stagnation and monotony in service, particularly for the ANMs. In a PHC set-up, after a few specified years of services, the ANM can at the most rise up to the level of a supervisor i e, LHV or female multi-purpose supervisor. Even after 30 to 35 years of service, she continues to stay in the PHC set-up, may be in a different area but essentially doing the same work and more or less in the same environment.

Research studies, including this author's, pointed out that rural health staff often do not live in the areas of their posting but commute from a nearby town or city. Study of the reasons indicates that personal needs like children's education, spouse's employment and inability to get a better house in the village are major reasons for these staff staying outside the area of their operation. While making the human resource planning for the health staff, these factors should be kept in mind. While improving the infrastructure in rural areas e g, schools and transport

system would be ideal, it will also help to link the promotional channel of the PHC employees, particularly ANMs, to the urban health infrastructure based on merit. To give an example, an ANM initially posted in a PHC could be posted to a semi-urban public health set-up after serving a minimum, stipulated number of years and proving herself to be responsible and meritorious. When there is a scope for opportilnities of growth, ANM feels motivated in her work.

The manual places a lot of emphasis on monitoring and supervision by the respective higher cadres as a means to achieve quality of care. However, provision of better transport system for all the cadres of the health centre is a necessary pre-condition for better supervision. A simple statistic – but often not recognised and appreciated – is the number of records to be maintained by the supervisor and the number of trips she or he has to make and the distance to be travelled without proper means of transport.

Interlinked with the aspect of better quality of care is the need to improve the basic training and the in-service refresher courses for the grassroots level staff. An issue that merits mention here is that of the skills related to administration of contraceptive services particularly those related to tubectomy by the doctors, and IUDs by the LHVs and/ or ANMs. Empirical studies have reported that many mishandled tubectomies and lack of post-operative care resulted in serious complications, ultimately leading to hysterectomy. Since the PHCs are not equipped to conduct major surgeries, the women go to private nursing homes spending a lot of money. Even with regard to IUD administration, the female health staff are found to lack the technical skills, giving rise to complications and failures. There is a strong need for effective training and good follow-up services with adequate stocks of medicines to cope with situations of this sort and to serve the segments with 'felt-need' for contraceptive services. It must be recognised that apart from the need to provide the service to the community in a proper way, there is a need to regain the confidence of the people and credibility of the PHC.

The manual gives rather superficial and rudimentary treatment to the very important social aspects like 'gender-sensitive services', 'male participation' and 'responsible sexual behaviour'. While these are talked about in the context of improving quality of care, none of these 'gender' issues figures in the strategies of implementation or performance

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assessment formats of the field staff. This creates an impression that there is a lack of seriousness and reveals a 'formalistic' attitude of the proponents of target-free approach. Besides, any serious approach towards implementation would and should initiate a fresh revision of the training capsule. As a minimum, the training curriculum needs to include all gender-related issues, male involvement and the role change for the staff in a decentralised set-up in addition to the technical aspects of primary health care.

Once again, when one talks of gender sensitisation, the role of the male staff – particularly male health worker – assumes a lot of importance in sensitising the men about responsible sex behaviour, use of condoms, reproductive problems of women, proper nutrition for women, and so on. The manual however ascribes only a limited role for the male worker and projects as though the responsibility of implementing target-free approach lies on the shoulders of the ANM alone. In other words, there is an overload of work for the ANM. Considering the extent of ground she has to cover in providing the services, interacting with the clientele and above all, the amount of record work she is expected to maintain, it is hard to believe she can cope up.

To highlight some of the other important aspects of the manual, a lot of effort has seemingly gone into highly structuring the various formats of evaluation, forms of reporting and technical assessment charts of various cadres of health staff. However, what is essential is that these forms need to be user-friendly with some guidelines and instructions provided (missing in the manual). Further, the manual missed out on certain important qualitative indicators of performance assessment in crucial areas of health care provision. The paramedical staff not only need orientation in using these, but the forms themselves need to be provided in a prepared, printed fashion. One should learn from the past experiences when ANMs had to maintain the records: observations from field revealed that there was no stationery (such as registers I books) available to them. Therefore, the ANMs had to prepare the records using plain sheets of paper, spending their own money and investing a lot of time and energy. This obviously hampered the other important work they were to actually carry out.

As for the structured forms or activity reports and other related documents, provision of a check list of associated symptoms for different ailments should also be made since the ANMs are entrusted with new activities (not done earlier) such as breast cancer, STDs, gynaecological ailments. This would not only help them handle their new tasks in a proper way but also aid the technical assessment of ANMs by the supervisory staff.

In addition to the changes contemplated and projected in the manual, some reforms in line with the experimental models of Tamil

Nadu and Kerala may go a long way in implementing the target-free approach. For instance, in the North Arcot Experiment,[2] novel steps like integrating literacy campaign with the health and family welfare prograrnme, developing a model for co-ordinating the efforts of the revenue, rural development and health department staff have helped the planners in fertility reduction. Similarly, employing literacy volunteers, introduction of state population policy, special macro progrunes for women and child welfare by the Jayalalitha government have also helped in good measure. Other positive steps to be emulated are: performance boosters like measuring individual ANMs performance by matching the acceptors addresses with the jurisdiction of the ANMs, involving the ANMs and other staff in target - setting process, supportive supervision and treating the ANM as a 'colleague' by the higher-ups in the medical cadre, and not as a subordinate.

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Merger of Ciba-Geigy and Sandoz
Some Implications

The ongoing process of mergers of TNCs in chemicals and pharaceuticals not only gives them an edge over the Indian companies but also poses a serious threat to government policies.

ON March 6, 1996, the two major Swiss TNCs – Ciba Geigy and Sandoz – announced worldwide merger to form a new company 'Novartis'. The worldwide merger of Ciba Geigy and Sandoz has certain implications for the home country (Switzerland) and host countries (including India). This merger has added new dimensions to the growing debate on the role of TNCs in Indian economy.

In India, the new company is to be called Novartis (India) and will be among the top five pharmaceutical giants in India. The two companies had a combined net sales of Rs 785 crore which include Rs 467 crore for Hindustan Ciba Geigy (HCG) and Rs 318 crore for Sandoz India. If the sales of the recently demerged chemical business of Sandoz and the Ciba's 100 per cent subsidiary company is taken into account, the combined sales will be much higher. In India, both these companies were competitors before merger. Both TNCs are present in agro-chemicals and pharmaceutical business in India. Certain products of both companies overlap in the Indian markets. This merger is expected to drastically change the face of Indian pharmaceutical industry. According to V S Sohoni, managing director of HCG, "This (merger) would mean a Rs 200 crore pharma business between the two of us, a Rs 200 crore pesticide agro-chemical business. Hence, this would mean greater financial strength, greater marketing muscle...". In the Indian context, this would mean that now these companies will no longer be competitors. Besides the market shares in many products of the new company will increase automatically, without any new efforts on research and development, efficient marketing and distribution. From HCG's 14th rank and Sandoz India's 34th rank in the pharmaceutical industry, the post-merger company's rank will jump to 8th position. In the agrochemical sector, the combined business of HCG and Sandoz India will rank second, after Rallis. Thus, the Novartis India will be in a better position to face other competitors in Indian drugs and agro-chemical industries. Besides, the power of new company to lobby with the Indian government for concessions has also increased after the merger. Thus, such merger of TNCs should not only seen in the context of dealing with other competitors but also in the context of gaining more power to lobby with governments of home and host countries.

The merger is basically a result of international phenomenon where a large number of TNCs are undergoing a process of mergers and alliances. Last year, the merger of Glaxo and Wellcome took place. With the merger, the 'Novartis', overnight becomes the second largest pharma TNCs in the world, after Glaxo Wellcome with 4.4 per cent of the world market and also the global leader in the life sciences as awhole. The German TNC – Hoechst – which enjoys the number two position, now has been displaced by the merger. In the coming days, we will be witnessing an oligopolistic trend in the pharmaceutical industry as there is a possibility of three German TNCs – Hoechst, Bayer and BASF – collaborating a joint strategy to increase their market share in the drug industry. Thus, the power of drug TNCs will be further consolidated the world over.

This merger also reinforces the argument that major decision within the TNCs are taken by the parent companies, leaving very little space for decision making with the affiliates in the host countries. In the case of Sandoz India and HCG, a large part of equity (over 40 per cent) is still in

TABLE 1: POST-MERGER BALANCE-SHEET
[Year ended March 1995]

(in Rs crore)

	Sandoz	HCG	Merged Company
Total Sales	318.37	467.21	785.58
Pharmaceuticals	91.91	128.88	220.79
Chemicals	125.48	185.43	–
Agro-chemicals	79.16	122.50	201.66
Consumer healthcare	–	30.30	–

Source: Business Today, April 6, 1996.

TABLE 2: POST-MERGER MARKETSHARES

Pharmaceuticals		Agro-Chemicals	
Company	Percentage	Company	Percentage
Glaxo-Wellcome	7.2	Rallis	13.0
Ranbaxy	5.4	HCG	7.0
Cipla	3.9	Sandoz	4.0
Hoechst-Roussel	3.5	Excel Indust	8.5
Pfizer	2.7	Bayer	7.3
Alembic	2.5	Hoechst	7.0
Knoll	2.5	D E Nocil	6.8
HCG	1.6	United Phosphorus	6.0
Sandoz	0.9	Lupin Agrochemicals	6.0
Others	69.8	Others	34.4
Strengths: nervous system, gynaecology and neurology		*Strengths:* leaders in pesticides and strong in seeds	

Source: Business Today, April 6, 1996.

the hands of Indian public. As this merger has certain implications (both negative and positive) for Indian shareholders of these companies, they were neither consulted nor informed about the merger plan. This clearly exposed the myth of corporate democracy and transparency as propagated by these companies where leave alone workers and employees, even Indian shareholders – who own a large equity in both these companies – were not consulted.

Cutting organisational costs is one of the major factor which influences the mergers. In the case of merger of Sandoz and Ciba Geigy, reduction of combined workforce of these two companies is a major agenda for cutting organisational costs. According to the companies' estimate, the merger would reduce the combined workforce by approximately 10 per cent or around 13,000 in numbers. As it is well known about Swiss TNCs that their strategies are rarely decided by the factors in the Switzerland but largely in the host countries (including India), this reduction of combined workforce is likely to be higher in the host countries. Even in total numbers, the combined workforce of these two companies in the host countries is much higher than in the Switzerland. Thus, it indicates a process of layoffs and retrenchment of workers in the various plants in India and other host countries will be launched soon. This also indicates that a similar process of layoffs of workers will also be undertaken in Switzerland. Thus, instead of creating more jobs, the merger would reduce workforce in Switzerland as well as in other countries where these two companies are operating. On the whole, workforce will be a major loser in this merger.

With the merger, the possibilities of increase in inter-firm and intra-firm transactions between the two companies have also increased. It is well known that many TNCs indulge in capital flight through transfer pricing methods. According to the latest World Investment Report 1995 by the UNCTAD, TNCs account for two-thirds of the world trade in goods and services, one-third of intrafirm transactions and the other one-third of inter-firm transactions. Thus, the merger of Ciba Geigy and Sandoz provides more opportunities to the new company to indulge in the transfer pricing, as compared to their pre-merger status.

Lastly, the process of world-wide merger of TNCs undermines the existing legislation and policy guidelines of national governments. Irrespective of sound pro-competition and anti-monopolistic policies of governments, the mergers at the global level leave the national policies redundant and ineffective.

–Kavaljit Singh

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Documenting Research

Ramila Bisht
Nilamvari Gokhale

Health Research in India – A Review and Annotated Bibliography: Foundation for Research in Community Health; 1994.

THE book is a significant annotation of available 'health research' in India. This book is a result of a project carried out by the Foundation for Research in Community Health (FRCH) team at the request of the ministry of health and family welfare and the World Health Organisation. The bibliography, published as a single volume tries to examine the available health research conducted by social science research organisation. academic institutions and market research organisations in both governmental and non-governmental sector. This review is particularly important as health research in India is of recent origin. The FRCH team has not only documented the available research carried out between 1985 and 1992 but has also critically examined it, pointing out the gaps in knowledge as well as the methodology of the research. The team undertook this review in 1993. They visited many institutes, organisations and agencies personally and contacted others by post. The book covers 102 institutions/organisations. Out of 400 documents gathered. 250 studies covering five broad topics were selected for review. This methodology was adopted by FRCH team to review health research has resulted in covering a large number of organisations and receiving maximum inputs of relevance. Teh review is done under five broad categories – (i) service delivery, (ii) epidemiological pattern, (iii) health educations, (iv) community participation and (v) alternative strategies.

Service Delivery

This is the largest section of the book. It covers studies on provision, access and utilisation of health care services along with the evaluation of national health programmes and health facilities in the public and private sector. The team in its review discovered that studies have concentrated mainly on public sector instead of predominantly prevailing private sector. Even in the public sector focus is more on rural public health services, concentrating on primary health care services and

below, with only occasional focus on hospital and other referral facilities. A similar trend is evident in studies on human manpower. Unfortunately the approach here is from an operational perspective rather than social. The review clearly points out the inadequacy of public health services to handle the expected range of helath care responsibilities, focus being largely on fmily planning programmes. The growing private sector is no better. Despite increase in number, it fails to maintain even minimum standards.

The bibliography reveals that very few research studies have been undertaken is the area of finance. In shortlisted research studies, the coverage is on non-governmental sector. The document correctly points out that probably the non-availability of recorded information and reluctance on part of private and non-governmental sector to share this information must be barriers in undertaking studies on aspects related to finance. Under organisational dynamics the review focuses on management information system in public health care model. The studies report duplication of reports and absence of standard formats. A lot of information is generated, but it is not very relevant or reliable and hence cannot be used for decision making or planning.

The FRCH research team found very few studies focussing exclusively on access and utilisation of health services. The bibliography reveals that even in rural areas there is predominant preference for private sector. But the studies fail to elicit the magnitude of utilisation of the private practitioners and services among various classes of society or their distribution in rural areas. The review team in its study reached the conclusion that the emphasis has been more on vertical programmes, stress being on family planning activities, leading to neglect of other impotant programmes.

The evaluations point to the diversity of health circumstances present, which speak of importance of priority setting. Given limited resources and the immensity of health problems facing our country, it is imperative that priorities be set and resources be allocated efficiently, if we want to have any impact on the health situation of the country. Several health problem are receiving attention, but other equally important ones appear relatively neglected.

The review makes no reference to the recent explosion of funding for research on AIDS. There is no doubt of the enormous health significance of AIDS, but it is critically important the research investments on AIDS do not use funds from reserch urgently needed for other health problems causing greater mortality and morbidity. Research on fertility and reproductive health claims high priority because of unwanted fertility and its relationship to population control. The need is to undertake research on issues related to women's health rather than just fertility or reproductive health.

Throughout the book, the reviewers point to paucity of information on private health sector. No wonder this has resulted in hardly any data being available regarding their growth, distribution in rural and urban areas standard of medical cure provided or patterns for regulating or monitoring them. This is a significant omission pointed out by the review team as the private health sector is an area rapidly growing under the umberella of liberalisation.

A gap in this book is a review of research studies in traditional medicines or indigenous system of medicine and practices. Health research in Ayurveda, Siddha and Unani needs to be documented. One expected the FRCH team to at least have attempt to include it in their review of health research. Similarly no attention is paid to research in field of mental health and behavioural health which is a major cause of morbidity.

Epidemiological Patterns

The review team undertook studies in this area with the objective of assessing the available evidence on prevalence and incidence of communicable diseases and their morbidity and mortality rates. Bibliography reveals most epidemiological studies are hospital-based though there is a trend towards doing smaller surves which generate health and morbidity patterns in selected geographical areas. They also discovered that the most commonly researched diseases are ARI and diarrhoea.

Pointing to the gaps in research, the team rightly indicates the need to do cultural – epidemiological studies. It points out, though not very explicitly, the urgent need for epidmiological data to be des-egregated from pational averages. These average often hide differentials and variabilities in terms of geogaphical area, income, social stratification, various social groups – minorities, tribals, immigrants and those disadvantaged due to the process of industrialisation and modernisation.

Critically analysing this areas of research the team intelligently suggests prioritising diseases into various categories. This will help in identifying those diseases far which an understanding of the disease load is useful. It also points to the need to utilise available data to gauge the current disease load which they erroneously feeel is sufficient. This is a contradiction in the analysis as they have already questioned the quality reliability and validity of the available data. Despite accepting the 'unregulated' nature of private sector, the team hopes that better imposition fo 'compulsory notification act' is possible and would help in collecting reliable edpdemiological information in this sector. These stand taken by the review team seems rather far-fetched to this

commentator, as such laws and acts have existed for long – with negligible impact. The review-team seems to be unduly hopeful.

Health Education

Though health education is a universally accepted component of all helath programmes, the FRCH team throws light on only nine studies indicating the need for more research in the area of health education. A majority of studies reviewed are evaluations of effectiveness of methods, materials and medium use in health education activity. Imparting information is only one part of health education. The other objective is to bring about change in health-related attitudes and behavior in directions more conducive to good health. Studies examining the second objective of health has also not delved in detail into the methodology adopted by the studies in this sections, which are of relevance and should have found a place in a study like this.

Community Participation

The studies reviewed under this category cover studies on socio-cultural factors influencing use of, and access to public health services, and evaluation of community participation in health care delivery. A large number of studies reviewed are KAP/KABP studies which the team reports are accompanied by in depth interviews, focal group discussions etc in order to enhance the quality of data gathered on people's belief, attitudes, perceptions and behavior.

As we all know community participation is of utmost importance, and is a desired goal of all community-based health programmes both in government and nongovernment sector. But a look at the studies indicates that it is still an elusive goal. Despite knowing this, unfortunately none of the studies have analysed the success or failure of efforts in increasing community participation by any agency. Various tenets of community participation had not been spelt out in these studies, therefore as correctly pointed out by the FRCH team further action research needs to be encouraged and promoted.

Alternative Strategies

The annotated bibliography ends by reviewing studies that evaluate alternative approaches to health care delivery in public, private and non-government sectors, especially with regards to cost-effectiveness are few and far between.

Another important finding is that these non-governmental organisations are able to bring about improvements in levels of awareness

but it is seldom seen translated into individual or collective efforts at self-care. The team though points to the overall vulnerable financial postion of non-government sector because of dependence on time bound external funding, it does not explicitly indicates need to study this whole issue of 'sustainability' of these experiments.

In field of alternative strategies, the current focus is on greater participation of private sector and alternative sources of health care financing (Reflected in WDR 1993). The review clearly points out that research in this area is still marginal. Studies reviewed presents a rather hazy picture of the role of private sector in insurance-based health delivery.

The book also reviewed few modification in health care delivery within the prevailing public helath system. In the rural sector, the team reviewd the area development projects – an effort towards socially integrated approach of the bio-environmental sector control programs. While in the urban areas, the team reviewed the studies on establishment of health posts with the aim of covering the needs of primary health care in urabn population.

The FRCH team concludes by empasising that no clear understanding of alternative strategies seems to be emerging from the literature under review. There is need to look at health sector in a holistic manner, recognising the role of the private sector. It appropriately cautions that better regulation of private services and well-designed research of comprehensive financing systems needs to be undertaken. This will bring the private practitioners into an integrated referral systems and enhance coverage rather than burdening the people with increased used charges.

The document has to a large extent fulfilled its mandate to survey current health research in the country, identify its strengths and weaknesses and generate specific recommendations for further research. It is important to recognise the 'power' of research in accomplishing the goal of improving health of the people – which until now have been largely neglected.

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The Calicut Declaration, November 1997

1 There is a universal and permanent need for all health care professionals to be cognisant with the ethical basis of clinical practice.

1.1 Health care professionals will encounter ethical dilemmas during their practices. These must always be resolved in the best interests of the patient.

1.2 Disadvantaged patients (eg; those infected with HIV/AIDS, the mentally ill or handicapped, the poor, the prisoner or victim of torture demand the same high standards of health care as does the rest of the society. In addition, they deserve special compassion. It is unethical to discriminate against the disadvantaged in any way.

1.3 Although we learn from our ancient heritage and contemporary practice world-wide, it is necessary to devise Asian solutions to Asian problems, taking into consideration social customs, national differences, and economy ie; realities.

1.4 It is important that we use cost effective measures, drawing upon the strengths provided by close-knit family relationships.

1.5 There is need to incorporate the teaching of medical ethics into the undergraduate and postgraduate education of each member of the health care team. Structured training programmes must be supplemented by debates, discussions at the bed side and periodic consideration of actual or hypothetical situations that are encountered in practice.

2. The doctor-relationship must be one of partnership, founded on trust and fostered by honesty.

2.1 The inevitable inequality in the relationship necessitates an extra effort by the doctor who must do all he can to help without patronising.

3. There is real danger of technology overpowering the dictates of common-sense and reason. It is necessary to ensure appropriate, relevant and cost-effective approaches in the diagnosis and treatment of illness.

3.1 Treatment of the patients with advanced cancer demands special qualities of both the head and the heart. It is important to recognise the stage at which we must call a halt to tests and anti-cancer therapy. From this stage onwards, the goal is ensuring freedom from pain and other distressing symptoms.

3.2 Although life is precious, there is a time for each of us to die. In a terminally ill patient, preserving life at all costs with high technology interventions is inappropriate; it is bad medical practice and therefore unethical.

4. There is need to ensure equitable distribution of scarce resources so as to gain the maximal advantages for both individual patients and society in general.

4.1 It is important to avoid the waste that is inevitable in duplication, the building of monuments to individual empires, and hte setting up of "mega-centres".

5. Each member of the health care team is a specialist in her or his chosen field and deserves respect. The team must be the first among equals.

5.1 The relation between the members of the health care team should be such as to promote learning from one another, mutual consultations, co-operation and efficiency - all focused on the welfare of the patient.

6. Associations of doctors, nurses, other health care professionals and voluntary agencies need to work in harmony with good communication between themselves and a commitment to patients and the general public.

6.1 Suspicion, paranoia about "turfs" and "territories", and vested interests have no place in ethical medical practice.

6.2 These association must inform, advise and motivate bureaucrats and politicians so as to facilitate and bring into being facilities that benefit public health and the care of patients.

6.3 The Associations need to work together to ensure human rights and to eliminate abuse, especially in relation to the underprivileged, the poor, the aged, the handicapped, the ill and those deprived of their liberty by the state.

6.4 Steps to ensure openness in all activities in clinics, hospitals, asylums and prisons - and periodic public scrutiny with free publication of findings - are a necessary part of this programme.

6.5 The functioning of our Medical Councils deserves close scrutiny and urgent corrective action. In the absence of effective statutory watchdogs, little improvement in health care will occur.

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