

Nani

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Now, since the might of the people's will has brought about the acceptance of the democratic principle, the time has come to demand its implementation in all instances and without reserve by the free word, written or spoken. Physicians everywhere already meet in assemblies to determine in common consultation the needs of their profession, their art and their science, and to take their interests out of the hands of 'superiors' who too frequently, alas, considered the antiquated rococo systems of their desks as the natural expression of justice, or even opposed the legitimate wishes of their contemporaries with the tenacity of utter selfishness. But the press also has now assumed a new position. No longer does it suffice to see the wishes of individuals brought before the public in the form of monographs. There now exists a need for periodical organs that aim to present and balance out the desires of the majority, if possible even of all who watch the measures taken by the legislative authority... This applies in particular to the measures taken by the executive branch, not because we have a historical right to distrust it, but because it is a self-evident right of free men to look after their own affairs themselves. ... The place to which fragmentation, apathy and isolation have led us is amply illustrated by the sorry state of our medicine. Let us now try for once where unity, enthusiasm and closer contact can take us.

—Rudolf Virchow,
Medicinische Reform,
No 1, July 10, 1848.

COLONIAL HEALTH POLICY IN
MADRAS PRESIDENCY

WOMEN, HEALTH AND DEVELOPMENT:
A PERSPECTIVE

STATES' HEALTH EXPENDITURE

STRUCTURAL ADJUSTMENT AND HEALTH
IN AFRICA

INJURED PSYCHES: MENTAL HEALTH
OF BHOPAL SURVIVORS

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Messages from Friends

Journals of this kind require the humanpower and clientele support, in ways other than funds. And in a country like India, it has to be groups in 10 to 15 locations supporting the central idea of the journals, but going their own ways in understanding current local realities. How do you get such 'friends' of the RJH ? That dialectical mode needs to be reinvented, where Gandhiji and the Naxalites left it. It would be flattering to re-launch the journal with such an ambitious co-objective, in which endeavour count on the support of this retired person living in Delhi.

New Delhi

R Srinivasan

I am so pleased to learn that RJH is going to be published once again. ...I dream of a society which results out of integrated and sustainable development where medicine is redundant because health will have become inevitable.

Kozhikode

Mundol Abdullah

We are glad to learn that RJH will make its appearance soon. It is a welcome step as there are very few journals at present focusing on interdisciplinary approach to social sciences and health.

Wardha

S N M Kopparty

I am happy to learn that you are restarting RJH. I hope you will be able to publish it for a considerable time despite the odds at play in our society.

Nellore

M S P Rao

(On this page we will publish letters to us as well as circulars meant for a larger readership. We invite you to write. Keeping in mind the space limitation, please keep communications brief.—Ed.)

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Atomised Approach

The new approach to the control of tuberculosis is yet another techno-managerial fix.

THE recent resurgence of communicable diseases for long thought to have been brought under control, is an expected outcome of a combination of factors: falling living standards due to decreasing real wages, freezing of employment opportunities, dipping nutrition levels, breakdown of sanitary measures and debilitated public health services under the auspices of adjustment policies. However, a morbid population in the long run is economically unproductive and provides, eventually, a mass base for coalescing people's demands and protests. And that is not exactly part of the blueprint of the institutions which are prompting third world countries to adopt new economic policies. The World Bank for instance, has responded in a typical fashion; it has constructed social safety net programmes and fashioned 'new' approaches to disease-control, which seek to resolve in a techno-managerial fashion, problems which are rooted in the larger socio-economic situation. The revised strategy for tuberculosis control, termed directly observed treatment (DOT) proposed in consultation with the World Health Organisation is one such international prescription.

This new strategy, which derives its urgency from the AIDS/HIV epidemic, is being popularised and enforced in various quarters since 1992. It has a strengthened leadership from a central unit, standardised short course regimens under direct supervision for all patients (but especially those confirmed as sputum positive cases), regular supply of all essential anti-tuberculosis drugs and diagnostic material and a monitoring system for programme supervision and evaluation following WHO guidelines. The ultimate objective of the revised strategy is to cure 85 per cent of newly confirmed sputum positive cases and detect 70 per cent of existing cases by 2000 AD.

Mehsana district in Gujarat, one municipal ward in Bombay and one chest clinic area in Delhi are three venues in which pilot projects are being run with funds from a previously underutilised SIDA grant. The larger project for the World Bank will be established in the states of Gujarat, Kerala, Himachal Pradesh, Bihar, West Bengal; in metropolitan cities like Bangalore, Bombay, Calcutta, Delhi, Hyderabad, Madras as well as Bhopal, Jaipur, Lucknow and Pune, which are cities of intermediate size. This will be financed by a loan from the World Bank to the tune of US \$ 20 million.

It is a matter of concern that the India's tuberculosis control programme whose excellent design grew out of sociological, epidemiological and technological insights, is being overturned without adequate justification. The programme, which is integrated with the general health services, was

expected, from the start, to sink or sail with it. If it has failed to live up to expected levels of efficiency, it is because of the socio-political and operational problems that beleaguer the public health services; namely, irrational and inadequate funding, misplaced programme priorities and the undermining influence of an unregulated private sector. The last factor is crucial and explains why an identical control programme works in an underdeveloped district but fails in a developed district.

The imposition of DOT is set at a time when health care is no longer viewed as a right but as a privilege that a certain section will be entitled to. Cutbacks in public spending along with privatisation and cost recovery schemes are resulting in curbs on the expansion of infrastructural facilities and making health care only more inaccessible and beyond the reach of a large section of the population. In the absence of universal coverage, even the most well laid out strategy runs the risk of failing.

DOT is partly concerned with the standardisation and rationalisation of treatment regimens. This is an honourable enough objective. However, the new regimen being proposed is expensive and its inclusion is indefensible unless the added costs can be absorbed entirely by the state and not passed on to patients through the imposition of user charges.

Equally, the emphasis on supervision of treatment poses a number of operational, social and ethical problems. While a concern about the patients' adherence to treatment regimes is natural from a clinical and public health point of view, the objective goes a step further and is founded on the premise that patients cannot be trusted to take their medicines unless they are monitored by an external agency. At one end of the spectrum are the hapless patients who now become targets in much the same fashion as 'eligible couples' do under the family planning programme. However, there is a qualitative difference here as the state does not restrict itself to the role of a persuader but becomes an enforcing agency. The visible presence of a health worker during the consumption of every dose during the intensive phase of treatment militates against the principle of confidentiality between patients and the medical profession. Considering the fact that tuberculosis is known to create or aggravate the social disadvantages that certain sections of the population (such as women, disabled persons, non-wage earners) face in families and in communities, the repercussions of this loss of privacy for patients are tremendous. And at the other end of the spectrum are the supervising agents, the community level health workers (health post workers, multipurpose health workers, etc.) who are already laden with the task of meeting unrealistic family planning and health programme targets under adverse working conditions. Under the circumstances, the necessity of supervising treatment will not only be additionally burdensome but will engender an atomised understanding of health that will only alienate them from the community.

—Aditi Iyer

Beyond Economics

The debate on structural adjustment programmes has so far sidelined a most significant factor: India's political system which by its very nature ensures that the vast masses remain disenfranchised.

IN India the structural adjustment and economic stabilisation programmes were set in motion in 1991. It may be argued, therefore, that it is too soon to assess the Indian experience. However, for a large part of the developing world the 1980s was a decade of adjustment. And there are enough pointers available from the experience of other countries. What stands out is that the performance of structural adjustment programmes (SAP) in terms of their own objectives — rectifying fiscal and balance of payments imbalances and raising the rate of growth — cruelly affects the social consequences of these programmes.

Among the countries following SAP the experience has been mixed; Indonesia has combined SAP with rising investment and growth; on the other hand, in Argentina and Zambia there has been a decline in per capita incomes and investment. Despite the variations, the balance of experience in Latin America and Sub-Saharan Africa, two major areas implementing SAP, has been negative. Each region taken as a whole exhibited declining per capita incomes and investment and accelerated inflation in the 1980s. Among countries implementing SAP in Sub-Saharan Africa, three-fourths had declining per capita income and half, declining investment and accelerating inflation. In Latin America and the Caribbean, more than 4/5ths of countries had negative performance in terms of per capita investment and incomes.

How SAP affects the condition of the mass of the people is determined by three principal factors: (a) through incomes, which are affected by changes in employment, wages and income from self-employment; (b) through prices of basic goods, especially food; and through the availability of essential services normally provided by the state notably health and education. In Latin America the GDP per capita fell in 18 countries and rose or remained the same in five. In Africa the GNP fell in 26 countries and rose or remained unchanged in 12. The overall experience has been that SAP tended to depress real wages as control over money wages is combined with devaluation and price decontrol. Evidence for Latin America shows that average real wages declined in the majority of the countries. In Africa real wages declined in 16 out of 18 countries.

Stabilisation and adjustment policies lead to reduced employment and fall in real wages in the short run; but the hope is that new, more productive employment opportunities will come up over time. However, evidence shows that employment growth slowed down in most countries in Latin America and Africa in the 1980s. For Latin America as a whole it has been

estimated that in the 80s four million fewer jobs were created than if pre-SAP trends had continued. In both Latin America and Africa, in response to the slow growth of employment in the formal sectors, the proportion of the labour force engaged in the informal sector rose significantly in the 80s. This led to depressed average wage and income levels.

Coming to government expenditure on social services, the evidence shows that aggregate per capita government expenditure declined in both Latin America and Africa. Within this there was a decline in the proportion of expenditure on health and education. As many as 60 per cent of the countries experienced cuts in per capita expenditure on health and education.

On the basis of all this evidence, which incidentally is from evaluations of SAP by organisations such as the World Bank and the UNICEF, do we then take a stand against the implementing of SAP in India? But take a look at India's own record after four decades of economic planning and state regulation, a large public sector and an economic policy with social justice and equity as conscious objectives.

In terms of the UNDP's human development index India ranked 123rd among 160 countries in 1990. Other facts are well known and hardly need to be reported here. The employment growth has barely kept pace with the growth of the population, and over long periods it has fallen short of it, such as in the period since the mid-1980s. In 1991, only one half of the population were literate with two-thirds of women illiterate. The average number of years of schooling is 2.4 compared to 8.8 in South Korea and 5.3 in Malaysia. The infant mortality is 79 per thousand. There are vast variations in these indices over the country, with the situation being much worse in some of the biggest states such as Uttar Pradesh, Bihar and Madhya Pradesh. There has been a slowing down of employment growth to 1.8 per cent in the second half of the 1980s from 2.1 per cent earlier.

These statements are not intended to be comprehensive, but to drive home the point that if the performance of SAP has been dismal, our own performance has been nothing much to write home about. How can we explain that the share of primary education in total government expenditure in education has dropped from 58 per cent in the First Five Year Plan to 29 per cent or in health, the comparable neglect of preventive and social medicine?

The current debate on economic development has tended to focus on issues — planning versus free market, open economy versus import controls, export-led growth versus import substitution or public sector versus private sector — which largely leave untouched the abysmal performance of the Indian state. There are yawning gaps created and perpetrated by the Indian political system. A system geared to constituting the political authority at the national and state level, nothing below that, with many of the states as large as countries. The result is that despite universal adult franchise the vast majority of the people are effectively disenfranchised. But no party is seriously concerned with this; no fuss is

being made over the fact that in many states local elections as required in the 73rd and 74th Constitutional amendments have not been held. This then is the central issue in Indian political economy, and it is time we grappled with it.

Through a Bhopal Prism

The experience of the victims of Bhopal is being mirrored everywhere: the powerless continue to be victims of disasters—chemical, natural, economic and social.

OVER the last decade literature on the critique of health has accumulated at a rapid pace. This has led to a qualitative change in the outlook of the social sciences towards health care and medicine. While many factors have contributed to this, the cumulative experience of NGOs, health activists, trade unionists, medical professionals and the progressive movement in Bhopal has been a major contributor to the deepening of our understanding of the political economy of medicine and health care. In the microcosm, Bhopal illustrates several elements of the progressive critique on health.

First the disaster itself. Let us look at the 'ifs': if the Union Carbide had not found it necessary to use and store toxic chemicals; if the rules of industrial safety were more stringent the disaster would not have occurred. If the industrial locational policy had been better structured then the juxtaposing of habitats and a hazardous industrial plant would not have occurred, and then, even if a disaster had occurred, it would not have affected such large numbers. If the state had taken its 'development' concerns more seriously there would not have been the population of under- and unemployed who had migrated in search of work and were managing to eke out a living—unhealthy, unhappy—in the vicinity of the factory.

Events immediately after the noxious gases escaped illustrate well just how anti-people the collusion between the medical establishment, corporate interests and the state can turn out to be—neither the state nor the medical establishment, beneficiaries of the Union Carbide's generosity at various times, were in a position to insist on information regarding the nature of the fumes, the antidotes and the method of treatment. In the following months the scientific and medical research establishment showed its incompetence. A country with 'the one of the largest community of scientists' could not put together relevant studies and surveys — not because it lacked expertise, but due to the fact that the scientific and medical research infrastructure had long lost the flexibility, the creativity and the sensitivity necessary for the furtherance of knowledge. Again, the delinking of medical research from health policy had been a matter of

concern for many years before Bhopal, a concern expressed in several expert committee reports. It was in Bhopal that the consequences of such a development became obvious.

In the 10 years since the disaster, the world has seen the Indian state's concern for the victims dwindling. The provision of medicare has followed set patterns of focusing on superspeciality care rather than ensuring that the day-to-day needs of the victim population is being met. The authorities could well have evolved a different 'community-based' approach to medicare here, but did not do so for more or less the same reason why the approach is given such desultory treatment in the country's health care system: it is not visible; it means that control of services, however minimal, passes on to the people, and; the health bureaucracy experiences loss of control and power, following upon which, the political leadership too cannot use the provision of services as a pawn in petty games.

Similarly, little serious attempt has been made to equip the victims with new skills and provide them with opportunities for economic self-sufficiency. The land and infrastructure set aside for the purpose of providing employment to the victims are, according to reports, being sold at high prices to entrepreneurs who have no intention of creating jobs for the victims. No serious thought has been given to improving the living conditions of victims: at one point the local administration demolished a section of the bastis of the victims, and those remaining are in a worse state than before; the water supply such as there is, has been further contaminated.

One may justifiably say that the non-establishment health and medical community has not exactly covered itself with glory in Bhopal. The private health sector is booming: fortunes it is said have been made by doctors and lawyers in Bhopal. Why did the conscience keepers of the medical community, presumably, the Indian Medical Council not ever examine the large-scale unethical practices in Bhopal? Nor have the NGOs in health shown either the maturity or the concern which should have overridden petty considerations.

What is chilling is that what is happening in Bhopal is happening in a slow and long-drawn out fashion all over the country. The powerless and those without a voice are becoming victims of continuing disasters, small and large, within factories and outside. The fragmentation in welfare services is more or less complete and is today further detached from provision of basic economic necessities: by the rules of the current economic policy regime, welfare services form part of the 'safety net' which is to take care of those affected by supposedly short term consequences of the new policies. The truth however, is very different. And it is more than likely that Bhopal will not be a unique occurrence, but will be repeated many times in many developing countries.

—Padma Prakash

Disease, Death and Local Administration Madras City in Early 1900s

V R Muraleedharan
D Veerarahavan

A complex of forces contributed to the shaping of the contours of colonial health policy. This article, which looks at the process of policy making in the port city of Madras in the early 1900s, explores the following: the different opinions which prevailed among municipal councillors regarding the effectiveness of certain policy measures, such as the maternal and child health scheme, the need for a special infectious diseases hospital, etc and the real and imagined constraints to the intervention of the colonial state in public health.

WHILE the broad outlines of the development of colonial health policy both at an all-India level and at regional levels have been fairly well drawn, the policies pursued in certain important urban centres, such as in the port city of Madras, have received far less attention.[1] Such micro-level studies can provide a better appreciation of the nexus of forces that shaped the policy making process and the decisions that emerged ultimately. In this paper, we take up the case of the colonial port city of Madras in the early decades of the present century, and give an account of the role of the municipal council of the corporation of Madras in shaping the nature and direction of its public health policy. We do not attempt here to evaluate the impact of the policies pursued by government. We are more concerned with understanding the perceptions of policy makers' on the nature of health problems specific to urban centres and the basis on which certain decisions were made. The following are some of the specific questions we are concerned with: what were the different positions adopted by the municipal councillors regarding the effectiveness of certain specific policy measures?; how much of importance did they give to prevention?; what sorts of constraints did they foresee and did they advance as reasons for supporting or opposing certain policy measures?, etc.

I Concern over High Mortality

The question of high mortality rate in the city of Madras often drew the attention of the municipal council but with little K C Desikachariar, a vocal member of the council, demanded an explanation for the increased mortality rate in the Madras city in the year 1904, the president of the

council stated that it was due to the increasing population of the city, insanitary living conditions and overcrowding. This was, in fact, a stock explanation often given to justify the government's inability to improve the health of the city. These apart, sometimes, the sudden peaks in mortality rates were also explained by the councillors in terms of outbreaks of epidemics such as the influenza of 1918 or famines.

The councillors' concern for poor state health of the city is evident from the nature of discussions that took place in the council. There were considerable differences amongst them as to the causes for the poor state of health. Consequently, their policy prescriptions to improve the health of the city also differed.

While in general the councillors accepted the fact that the overall insanitary conditions of the city was largely responsible for the poor health, they felt inapt to do anything as it was basically a consequence of the low level of living standards of the various sections of the people. For example, the *Paracherries* (slums where only the socially low class people lived), which numbered 105 in the city in 1910, were viewed by many council members as hot beds of diseases. The government did make a few but unsuccessful attempts to erect model *Paracherries* in the city. There were three model *Paracherries* in the city by 1910 which was claimed by the Corporation to be "undoubtedly a success from every point of view except the financial one"[1]. The remaining 102 *Paracherries* privately owned, were in the "populous parts" of the city. The corporation often complained that it could exert only little pressure on these private *Paracherries* to improve their sanitary conditions. Only in two cases the owners provided drains "at the instance of the Corporation".

As mentioned earlier, while the council unanimously accepted that the city's health was poor and was deteriorating over the years, the members differed as to what they should do to improve the situation as a result of what they 'perceived' as constraints in implementing various policy measures.

Broadly speaking, the discussions that took place in the council in early the decades of the century can be summarised as follows: since clearly it was not possible to expect the colonial government to effect significant changes in the socio-economic structure, the council had to limit options for improving the health of the city: one option was to reorganise the health department in such a way that would increase its efficiency, and another was to initiate certain measures that would directly help reduce deaths due to specific causes.

A section of the councillors felt that the health of the city rested fully on the health of the health department. Hence, they argued that, only if the department was improved could the city's health be improved. One of the ways by which they sought to improve the efficiency was to get rid of the excess staff. A committee was appointed in 1906 by the council to decide

the extent to which the department could cut down on the number of health-peons employed in the city. The question was, did the 250 health-peons employed by the department justify their existence. E S Lloyd, the president of the council in 1906, had categorically stated that,

Neither I nor the Health Officer nor the commissioners think for one moment that they are all alike useless. That will be going too far but our opinion is they are not useful enough to deserve the large amount of money spent upon them. What we mean to do is to get rid of them and put men holding higher appointments in their position. The opinion of many of us is that we have too many subordinates and not nearly enough of highly paid officers [2].

The committee thus suggested a reduction in the number of health-peons, while at the same time recommended an increase in the number of sanitary inspectors and an additional health officer [3]. Another suggestion for improving the efficiency of the department was to effect a "complete separation between conservancy and sanitation works"[3]. T M Nair, one of the councillors (and a medical practitioner in the city) was a staunch supporter of this kind of change in the department. He argued that the system as it existed in 1907 resulted in one set of peons to supervise the removal of night-soil and another to supervise the removal of rubbish. He, hence, suggested pruning of staff besides merging some of the temporary plague establishment with a large number of vaccinators with other staff of the department. By 1907 there were 24 vaccinators in the city but they were not engaged in vaccination work the whole day[3]. Much of their time was spent on hunting for the unprotected children. This, he suggested, "the Sanitary Inspector ought to be able to do as he goes around his division" in the city. "He has facilities for ascertaining where there are unvaccinated people. If this work is done by the Sanitary Inspector the work of the Vaccination Department becomes so little that eight vaccinators would be quite enough". According to Nair, the government could also gain financially if the department were to be reorganised as proposed by him. But such arguments and suggestions were not always received favourably by other members of the council since they were not convinced of any positive impact such measures would have on the health of the city.

A severe criticism on the efficiency of the health department came from U Rama Rau, a member of the council, in contrast to the widely prevailing perception that the root cause of ill-health of the city lay with people's life style. While he did accept that "want of sufficient quantity of good water, and good drainage system [was] responsible to a certain extent for this state of affairs", he believed very firmly that the inefficient management of the health department "as it exist now is one of the main causes"[4]. It is worthwhile to give some details of his argument since it reveals to a large extent the how policy makers often perceived certain issues and as a result what they prescribed as remedies.

Rama Rau's main worry was to explode the myth that the city's poor state of health was due to the faults of the people. T M Nair went a bit further saying that the health department was inefficient because they themselves "have no sanitary knowledge", which stood in the way of improvement [4]. Sanitary executives often blamed the people for home sweeping wherever they liked. "But the fact", Rama Rau pointed, "is enough dust bins are not supplied. Such being the case it is but natural that people who are ignorant of sanitary principle throw rubbish outside the dust bins". Hence, he argued, "the fault lies in the Sanitary Department". Similarly, drains were rarely cleaned and never flushed. If by chance they removed the drains, the silt deposited by the sides of the drains remained there for days and sometimes for weeks. Besides, because of the habit of walking barefoot, people tread on silt and carried germs into their houses. That was one way of carrying contagion. The other way of carrying the contagion would be, when the silt dried when left for days "it gets blown all over the streets in the form of dust". This would affect "meat sellers and trash selling women who invariably keep their bazaars near or over the gutters with eatables". So, Rama Rau argued, the original cause was the lack of frequent cleaning of drains by the department and not the insanitary habits of the people. The latter only aggravated the situation. Similarly, Rama Rau identified the problem of adulteration of food stuffs as another cause for the poor state of health of the city originating from the department for the poor state of health of the city. There was hardly any inspection of vendors of foodstuffs though the corporation had the authority, under section 353 of the Madras City Municipal Act of 1904, "to make provision for the constant and vigilant inspection of animal's carcasses, meat, poultry, flesh, fruit, milk, ghee, butter, oil, and any other articles exposed or hawked about for sale"[4].

Disinfection of houses also, according to Rama Rau, did not take place in any useful manner. He cited many instances where disinfection was carried out six days after the occurrence of cholera. In addition, "the health subordinates exercise their authority and frighten people with different motives". When they do house to house inspection, "the people who are in his good graces are let off, while others are worried and dragged to the Court unnecessarily".

Rama Rau's criticisms were designed to impress upon the executive of the council that the city's poor health was due more to the inefficiency and mismanagement of the health department than due to other factors. A committee was appointed as a result to look into the working of the department and suggest ways by which its efficiency could be improved. But his scathing criticisms of the functioning of the department hardly had any effect on E S Lloyd, the president of the corporation in 1909, who retorted thus:

Madras will not improve for another hundred years if people do not improve...

It is true that we work with inefficient tools. It is true that some of the sanitary

staff are not very best possible men that you get... They are human beings like the Commissioners, but they do their best... If you become the executive you will be just as bad as we are [4].

Yet another retort came from R M Savage, a member of the council, who questioned the very purpose of Rama Rau's review of the functioning of the department. Savage bluntly said, "there is nothing new in what Mr Rama Rau has told us; he only repeated what we knew, and it is all ancient history"[4]. He thus maintained that the defects pointed out by Rama Rau "can never be remedied unless we are prepared to employ more expensive men... But we can not afford to pay... The department is absolutely helpless so far as funds are concerned". The executive even went to the extent of saying that some of the councillors were against the wonderful work done by the department because they were greedy to become the executives themselves and have power. Indeed there was nothing new in Rama Rau's review of the department since these were often discussed in the council in one context or another. However, the central question remained unanswered was: what are specific measures were that should be introduced by the corporation within the overall financial constraints that often supposedly stood in the way of improving the health of the city.?

In what follows, we give an account of the measures contemplated and introduced by the municipal corporation of Madras in order to contain the high level of infant and maternal mortality and deaths due to smallpox in the city.

II

Maternal and Child Health Scheme

Increasing infant and maternal mortality in the city had always received a wide publicity. One of the earliest steps taken by the corporation of Madras specifically to counter the upward trend in infant and maternal mortality was to appoint lady sanitary inspectors (LSI) to teach infantile hygiene to "ignorant mothers". By 1910 there were three LSIs in the city; each was expected to work in an assigned division of the city [5]. U Rama Rau had repeatedly questioned the usefulness of having the LSIs, since the infant mortality continued to increase even in those divisions where they were employed. He hence observed that "the efforts of the LSIs had no effect in reducing infant mortality". His argument was more substantial in that he questioned not so much the idea of having LSIs as the way in which they had been trained. He argued, "the curriculum to train midwives and sick nurses does not include infantile hygiene... [they] know nothing beyond midwifery and sick nursing. Besides they don't inspect houses and teach infantile hygiene as they ought to do." Besides, each of them was able to visit only three houses a day on an average. How they utilised their time "God only knows!"[6]. Rama Rau's criticism was

mainly against the lack of knowledge and training of the LSIs employed by the corporation. In his view, it was, therefore, a wasteful exercise and a waste of "poor rate payers' hard earned money."

However, much against such criticisms the corporation continued to employ more LSIs in the city, and in 1917 it inaugurated a new scheme called child welfare scheme (CWS). Introduced initially in only two centres in the city, the scheme was extended to six more centres in the following five years and gradually established outside Madras city as well. Its objects were "not to relieve Municipal Councils and District Boards of their responsibilities, but rather to guide, advise, and assist these local bodies in their effort to ameliorate the conditions" [7]. Under this scheme, each centre would be provided with a trained midwife who would attend to deliveries in a particular region within the city. In addition the midwife was also expected to visit the houses of puerperal women and keep a record of their progress. Administratively, all these centres were under the care of a lady superintendent, who was a medical doctor. Although this scheme became popular over the years, its progress was slow in its early years. The superintendent of the scheme as well as the surgeon-general with the government of Madras felt that the scheme needed a thorough overhauling of its defects before expanding it further. The superintendent wrote clearly in one of her letters to the surgeon-general in 1923 that,

...in 98 per cent of the cases registered at the CWCs it is not possible for the nurse or the doctor to treat the patient in the home owing to lack of accommodation, filthy habits and ignorance of the people and to the crowding in of equally ignorant relatives, each with his or her advice as to what the doctor should do, not to mention the want of a clean linen, suitable food and (what most disgraceful to this Corporation) even a clean supply of water. Under these circumstances, it is in the interest of the patient to get her to hospital where she will have the best treatment under the best possible conditions [8].

Some of the councillors felt that there was more talk than action in this regard. While some of them were disappointed (that in their divisions) where such centres were located infant mortality did not decrease appreciably, there were others who felt that but for the CWS the mortality might have gone up still higher. But the opposition to the scheme came from another set of councillors who were "perfectly convinced that CWS was not doing good work." [8]. B S Mallayya, a very vocal member in the council, who was also a medical doctor practising in the city, was against any expansion of the scheme on the existing lines. He was not against the scheme in principle but he was not happy about the kind of workers employed under the scheme. His argument was to replace the existing midwives with good workers: "[otherwise] it is no good wasting the Corporation money on the scheme."

These midwives were trained only for a year but, as Mallayya argued, were given "powers far beyond their scanty knowledge justified". They

had been allowed to act on their initiative during childbirth and had been "the cause for many diseases." Mallayya thus suggested that these midwives should be always accompanied by a medical officer. What would happen otherwise was difficult to imagine, Mallayya feared:

...some of these nurses are adacious enough to bring on labour pains by giving quinine pills, pull on the chord and invert the uterus in their attempt to deliver a placenta, treat a case of Pneumonia complicating child birth with purgatives and pour plenty of tincture of iodine into the ear of the ailing infant and all this in the name of the Corporation [8].

Cleanliness and asepsis were dreamt of, rather than experienced by the midwifery practice of the corporation child welfare and maternity scheme. "It is high time to stop them... I do not want the fair name of the Corporation to be run down by these midwives... If midwives cannot practice aseptic midwifery how are they better than the Barber Midwives?" reflected Mallayya. Conflicting figures were given by various members of the council, depending upon their position for or against the continuation of the scheme. However, it is difficult for us to comment here on the impact of this scheme on infant and maternal mortality rates.

Those in support of extending this scheme (such as Natesa Mudaliyar, a member of the council) argued that since the need for this scheme had been felt rather deeply, we must "have them first and then mend them" slowly over a period of time [8]. They argued that it was not necessary to wait until a special committee evaluated the working of the scheme and made corrective measures, since "[the Corporation has] no right to keep the people waiting". As V Tirumalai Pillai, president of the council in 1924, put it: "half a loaf is better than no bread", meaning that higher efficiency could always be achieved as more experience was gained over a period of time [9]. But inefficiency of midwives was not the only account on which this scheme was opposed. For instance, some of the members in the council also argued that the scheme was not cost-effective. Mallayya argued that it was hardly more cost-effective than the institutional care given by the corporation maternity hospitals in the city. His calculation showed that "on an average a delivery at home costs a poor man Rs 30, and the Corporation has to spend another additional Rs 12 on it, if it is conducted by our Child Welfare workers, while the average cost of confinement in the Corporation Maternity Hospital with lodging, feeding, linen and all including was only Rs 14" [8]. The amount spent by a poor man if the delivery took place at home would include basically the cost of lodging and feeding the barber women and the cost of medicines and other things required for the health of the mother and the child. Besides, there was no assurance of the quality of care guaranteed in state-maintained hospitals, Mallayya argued:

The object of eliminating the barber wife (commonly known as *maruthuvachi*) and replacing them with trained midwives was not easy to

achieve in practice as long as deliveries were conducted in private houses and as long as the corporation employed inexperienced midwives with little training whose utility, however, was constantly questioned. The only alternative for improving the maternal and health, according to those against the existing CW scheme, was to open a number of Maternity Homes in the city, each with about 10 beds, staffed by "the very best and highly trained nurses.

While some of the doctor-members of the council themselves differed on the usefulness of opening more such centres in the city for want of 'competent staff', the scheme nonetheless expanded slowly and became firmly a part of the maternal and child health care policy for the entire Madras Presidency. The problem was essentially one of finding a balance between quality of care and quantity of care. This tussle troubled the councillors. Quality of care suffered not only from the inefficiency of the department and lack of financial resources. Often, it also suffered from hesitancy on the part of the policy makers in adopting certain medical interventions available and known to be effective against specific diseases such as the policies pursued for controlling smallpox in the city of Madras in the 1920s.

III Smallpox Control

Frequent occurrences of smallpox in the city of Madras despite the ongoing work of the vaccination department, raised several important questions. Typically, the following cryptic comment of T M Nair made in 1911 in this respect illustrates the the perception of many concerned authorities:

We have unfortunately got into a groove so far as vaccination is concerned. We are running into that groove without attempting to consider the scientific aspect of it. The question is whether our vaccination is satisfactory; whether we have vaccination which will prevent smallpox? Vaccination as conducted now does not produce requisite immunity from smallpox [10].

Nair supported his view with figures that could hardly be contested by anyone in the council. His figures for 1911 on deaths in Madras city due to smallpox revealed that except among those aged less than one, deaths among the unvaccinated was always lower. The council was puzzled as to why there should be this preponderance of deaths among the vaccinated. He explained this phenomenon by blaming largely the ineffective handling of the lymph resulting in loss of potency before use.

It was in such an atmosphere of scepticism that the corporation of Madras tried (in vain) to make revaccination compulsory. The council was not unanimous in supporting the policy of compulsory revaccination. While some of them were highly apprehensive about people's acceptance,

others were not even convinced of its scientific status as a preventive measure against smallpox. This is evident from the discussions that took place in the council during 1923-24 which show clearly how factors other than financial constraints shaped the evolution of public health policy in colonial India.

In May 1923 the council was debating whether or not to enforce the compulsory revaccination of children at the age of 10 in the city of Madras. A standing committee appointed to study this subject recommended that revaccination "may be made compulsory between the age of 7 and 10 on the basis that smallpox is a disease of childhood", since rarely did an adult suffer an attack [11]. The health officer of the corporation remarked in 1923 that,

the best rule would be to revaccinate everyone living in Madras once in seven years. There must be a general legislation by the Provincial government insisting upon revaccination being made compulsory on every individual once in 7 years. But my proposal was restricted to the first 10 years because if we are able to vaccinate children within 10 years of age it would be effective in warding off attacks in the case of a large number of children who are likely to get affected[11].

There were also other important reasons to make revaccination compulsory, as argued by B S Mallayya. According to him, smallpox seemed to have a cyclical reappearance in the city. He observed that "it assumes severe epidemic form once every five years. The next was expected in 1927... The present policy of waiting for the epidemic to develop before any preventive measures are taken to keep it down, always leads to criminal waste of life"[11]. He was convinced that no amount of lecturing, pamphlets, leaflets, evacuation, removal to isolation hospital or disinfection would stop it. All these would only scare people even more. "Protection derived from vaccination against smallpox lasts for 7 years. If everyone born or living in Madras is vaccinated or revaccinated once in every 7 years, Madras will be free from smallpox epidemics," he opined. There was yet another reason, he explained, why smallpox returned in epidemic form though some vaccination work had been going on for some years in the city. That was because "the work turned out by the vaccination staff at present [in 1923] is inadequate to meet the demand of the city. They vaccinate 27,000 persons annually (i.e., 5 per cent of the total population of 5,25,000)." In five years, they would have vaccinated 25 per cent of the total people, which left 75 per cent unprotected. "So smallpox steps in and tries to finish the work left undone by the vaccinators, and this accounts for the quinquennial periodicity of smallpox epidemics in Madras". Therefore, Mallayya argued, revaccination at the age of 10 was desirable. Mallayya was, of course, aware that legislations alone would not prevent an epidemic: "What is wanted is mass education, public cooperation and solid work by our vaccinators." In fact the health

officer opined that vaccination could be done at any age, citing the experience of Germany where even at the age of 60 people were revaccinated compulsorily.

But such views were also questioned by many members in the council. While there were a few who found it difficult to accept the scientific basis of revaccination, there were others in the council who called it useless and were ready even to challenge any authority on this matter. For example, V Ramakamath, a medical doctor from the city and a member of the council in 1923, questioned the wisdom of making revaccination compulsory:

[the council should first] make up its mind to find out the efficacy of vaccination in protecting children or the adults before we rush into legislation. I, as a practising doctor, find it rather delicate to give my opinion about this because men more eminent than myself have come to the conclusion that vaccination is the only method of preventing smallpox. But I feel at the same time to bring it to the notice of the house that there have been cases which have come to my notice where children who have been vaccinated have suffered really from a very severe attack of smallpox[11].

The best thing to do before rushing into legislation under such circumstances, according to Ramakamath, was to enquire into the state of affairs in England and other places, particularly the state of legislation there and how things were managed. The health officer of the corporation admitted that "the immunity given by vaccination is certainly a matter of great controversy" but held that "vaccination is certainly a protection against smallpox...[only] the figures collected [by the government] probably go against the theory of vaccination ... because of lack of reliable statistics." He used the statistics at his disposal to support his position: about 8 to 10 per cent of the vaccinated children under 10 years suffered from smallpox if vaccinated, while it was 16 per cent if unvaccinated; the mortality in unvaccinated cases was something like 35 to 40 per cent, whereas the mortality in the vaccinated was invariably less than 10 per cent[11].

Often the use of ineffective lymph also raised doubts about the principle of vaccination itself. There were occasions when the director of the King Institute admitted that the lymph produced by the Institute was "distinctly bad"[11]. But the government would not own such mistakes and invariably blamed the vaccinators for deaths among the vaccinated.

However, the question remained as to what was the ideal age group in which revaccination should be done. As a result a series of special committees appointed to decide on this issue, it was finally decided:

[that] all persons who have attained the age of 21 years and who have not been revaccinated within the last seven years be at once revaccinated and that every individual should be revaccinated on occasions during his or her life time, namely before the age of 1, 10, and 21 years and at any age when epidemic of smallpox is prevalent.[12]

The concern for quality of care in the case of smallpox was not confined to the application of vaccination alone. When it came to providing institutional care for the smallpox patients in the city, the question of physical accessibility to hospitals brought out clearly again the council's policy of compromising quality of care for quantity.

We trace a series of interesting events that took place from the time the government of Madras and the corporation of Madras began to evince an interest in constructing a separate hospital for treatment of infectious diseases in the city of Madras. Although on a number of occasions prior to 1898 the question of providing special care for people suffering from infectious diseases engaged the attention of the government of Madras, it only acted in 1898. Prior to that, the contagious wards at the General Hospital in Madras were used only to accommodate cases accidentally arising in the hospital itself. This policy, carried out under the orders of the surgeon-general, denied accommodation not only to the natives but also to the European patients suffering from contagious diseases. Binny and Company, representing the European and Eurasian patients, brought to the notice of the government in early 1898 the "danger and inconvenience" arising out of such a policy. As a result, the government consulted the surgeon-general as to what should be done to provide care for such patients. The surgeon-general suggested construction of a "proper isolation hospital" for all classes in the city for treatment of contagious diseases [13]. But the corporation of Madras pleaded 'impecuniosity' and said that the erection of the proposed hospital for contagious diseases fell more within the scope of the Imperial funds [14]. The city was certainly suffering from a heavy outbreak of plague during late 1890s causing huge expenditures for the municipality. Hence they argued that "the construction of the hospital was beyond their means and that they could do no more than add more wards at the Moneger Choultry or Kistnampet (where some temporary tents were erected to accommodate the natives)"; and as for the European and Eurasian patients, the corporation suggested that they may be received at the General Hospital whenever accommodation was available. The council thus resolved that such a practice should continue "until all fears of plague vanished"[15]. The surgeon-general who was disappointed with the response of the council remarked thus:

In my opinion the matter does not appear to have received that attention which the importance of the subject demanded. The commissioners [i.e., the members of the municipal council of Madras] appear to me to have failed to realize their responsibility in providing the city with such an institution which is necessary to avoid the more important hospitals at the Presidency being required to admit contagious cases into their wards for want of other suitable accommodation... I need hardly point out that expenditure in this direction is conducive to the health of the population and certainly of a much more urgent and useful nature than providing the city with gas light[14].

The last line in the above quotation acquires importance since street lighting in the city of Madras was becoming an important activity for the government and was being carried out quite intensively during 1890s. The surgeon-general found it difficult to convince the council of his views. Instead, he suggested that the government should constitute a committee to draw up a scheme "which might be taken on hand as soon as the pressure on municipal finance was over"[15]. A committee was thus formed in October 1898. But there were many who questioned the usefulness of such an exercise. As R E Ellis, the acting president of the Madras municipality in 1898, who also headed the committee, himself put it:

I fail to see what benefit will be derived by the formation of a committee. We all know that it is most desirable that there should be a hospital for the accommodation of contagious diseases. We all know that the municipality has no funds. The question is who is to provide the hospital. If the committee can settle that point, by all means let it be assembled [16].

However, the committee submitted its report in April 1899, suggesting postponement of the issue, for the following reasons:

...the question of constructing a contagious diseases hospital for the city of Madras be deferred in view of the fact that the establishment of the George town hospital was practically in abeyance, of the stress under which the Municipality was labouring owing to plague expenditure and of the practical impossibility of constructing and maintaining such hospitals;

and

that when Madras was declared free from the danger of plague and the existing precautions were suspended, the plague hospitals and camps could readily and economically be adapted for the purpose [17].

Such recommendations were readily accepted by the government since expenses as a result could be postponed at least for the time being. Thus the government refrained from taking any action in this respect until 1905, when an European suffering from smallpox living in the premises of P Orr and Sons was denied accommodation both in the General Hospital and in the Isolation sheds at Rayapuram, even though it was available [18]. The Madras Trades Association, through whom this matter was brought to the notice of the government, urged that the government should impress upon the Corporation the necessity of providing accommodation for infectious cases, quoting section 362 of the Madras City Municipal Act, 1904, "that the Corporation, when and as required by the local government, shall construct and maintain hospitals"[18].

It was no longer possible for the government to defer a decision on this matter. The difficult conditions which justified postponement of the issue in 1899 had not improved even by 1905. The financial position of the corporation in 1905 continued to be in the same state as in 1899. The expenditure on plague by the municipality, had in fact, increased, and there was no possibility of reducing any expenditure on plague which had become indigenous in the city itself. The government accepted that:

this matter should no longer be deferred, as the supply of a hospital for the treatment of infectious diseases constituted one of the most pressing wants of the city, and could not be indefinitely be postponed ...if action is to be deferred until all danger of plague ceases, it may be deferred for ever [18].

But such an acceptance by the government did not bring any immediate relief and care to the patients. It took almost a decade to begin the construction work for the proposed hospital. Having accepted that the construction of an isolation hospital could no longer be postponed, the government reassembled in 1905 the committee appointed in 1898 to prepare "practical proposals" in regard to the site and construction of the hospital, and to draw up the necessary plans and estimates[18].

The committee recommended a "distinct smallpox hospital" for the City, besides two hospitals for other infectious diseases (one in the north and one in the south of Madras). The committee also suggested a separate site for each of these hospitals. The existing smallpox hospital, to be located north or north-west of the Lunatic Asylum, was to consist of 30 beds for native males, 20 beds for native females, 12 beds for European and Eurasian, six each for males and females. As for the other two hospitals for other infectious diseases, it recommended that one should serve the needs of the north Madras and the other of the south. While the committee suggested a new site for the north, it considered the existing Isolation Hospital at Kisanmpet to be adequate for the south of the city [19]. But these sites were not favoured either by the sanitary commissioner and the Madras government's sanitary engineer. They objected to the site proposed by the committee north or north-west of the Lunatic Asylum on the ground that it had already been selected by the government to locate the head works of a new water supply scheme. Their objections to the location of a hospital for infectious diseases in the north of the City was on the following grounds: (a) that the site was too small; (b) that the site was in the midst of the densely inhabited part of Georgetown of the city; and (c) that it was entirely surrounded by buildings preventing any ventilation[19]. The sanitary commissioner instead proposed a larger site near the Rayapuram Military Hospital for both smallpox and other infectious diseases. This new site was roughly three times the size of the site suggested by the committee for the infectious diseases; the new site was "open to the breeze" from the north, west and south and had no dwelling houses in its vicinity"[19]. But this time it was the turn of the corporation of Madras to object to sanitary commissioner's proposal:

the Corporation disapprove of the site recommended by the Sanitary Commissioner as being in too crowded a locality for a hospital for infectious diseases; they also disapprove of the amalgamation of a cholera and small-pox hospital on one site; they recommend that two small-pox hospitals of 40 beds each be built, one for the northern and one for the southern portion of the city; they approve of the construction of quarters for a hospital staff.³

This new site recommended by the sanitary commissioner, "must be definitely abandoned", the corporation argued, since, apart from the fact "that it would be extremely inadvisable to place both hospitals permanently on the same site", a model *Paracherri* to the north of this site was coming up, and to the west of this site extensive quarters for the Railway servants was under construction [20].

The corporation after much deliberation agreed that,

...there was no immediate necessity to consider further the question of a hospital for infectious diseases apart from small-pox. The old military hospital [in the north of the city] is now in use for the purpose and is capable, if necessary, of considerable extension, while the Kistnampet hospital supplies the needs of the southern part of the city. The evil at present is that small-pox cases have also to be admitted to these hospitals and the first thing to do is obviously to provide for such patients elsewhere.[21]

The question now before the corporation and the government of Madras was to decide whether to have two separate smallpox hospitals (one each for the northern and southern parts of the city), or, to have a single central smallpox hospital for the city.

The issue was ultimately linked to the availability of funds. It was around this period (1905-1910) that the corporation had decided to implement huge drainage and water-supply schemes in the city, but it could not at the same time ignore the pressing need for a smallpox hospital. The corporation now had to consider the possibilities of raising additional capital for constructing and subsequently maintaining two hospitals. It could not find an answer and therefore agreed to having a single smallpox hospital for the present. It accepted that in view of the constraint posed by lack of funds, "a single hospital is desirable if a suitable site can be found at a site sufficiently central to serve the requirements of the whole city"[22].

From now on, for nearly a decade, the issue became one of finding a suitable and centrally located site in the city for the smallpox hospital. It was difficult in the first place to identify a site that the government and the corporation would agree upon. After a long search, a place was found in 1907, but there were difficulties in obtaining sanction for the alienation of the site from the military department to whom it belonged. Besides, every time a new site was proposed, it had to be accompanied by an estimate of cost of construction and corresponding plans, the preparation of which caused further delay in deciding one way or another. It appeared as though there would never be any agreement on identifying a convenient central site in the city for the hospital. The government conceded in April 1912 in the legislative council that it "was not possible to frame any anticipation as to when the hospital will be completely constructed".[49]

IV Concluding Remarks

While tracing the role of the municipal council in shaping the nature of public health strategies adopted during the early decades of this century in the city of Madras, we observe that the council more often slowed down the pace of development. Some of the members of the council were positively against expansion on existing lines. This was because they were more skeptical of the efficacy of certain (available) medical interventions. It is interesting to note that there was not a single member in the council during the period of this study who argued for introducing indigenous medical care facilities either as an alternative or as a complement to the allopathic system. While one set of councillors blamed the inefficiency of the health department for the poor state of health of the city, others ascribed it to lack of finance and prevailing social conditions.

What appears important in explaining the slow development of public health policy in the city of Madras in the early decades of the century is not so much the financial constraints per se as the council's perception of the nature of the problems, and more importantly, the council's reluctance to accept certain existing potentially useful interventions. A closer look at the discussions amongst the policy makers in colonial India will be of value to the public policy analysts of today in that it could throw light on how ideas, values, prejudices, expectations, and power of the individuals involved in the policy making process within the government get expressed and result in specific policy outcomes. Such case studies as we have presented here, we believe, are needed for a proper understanding of the evolution of health policy in India.

Notes

[This is a revised version of a paper presented at the 54th annual session of the Indian History Congress, Mysore, December 16-18, 1993.]

[All the proceedings of the meetings of the corporation of Madras referred to below are available at the archives of the corporation of Madras.]

1 For an outline of the history of health policy in colonial India, the reader may refer to (a) David Arnold (ed), *Imperial Medicine and Indigenous Societies*, New Delhi, Oxford University Press, 1989; and (b) Radhika Ramasubban, *Public Health and Medical Research in India: Their Origins under the Impact of British Colonial Policy*, Stockholm, 1982. There are also a few region-specific studies: (a) J C Hume Jr, 'Colonialism and Sanitary Medicine: The Development of Preventive Health Policy in the Punjab, 1860 to 1900', *Modern Asian Studies*, 1986, 20:703-24; (b) Poonam Bala, *Imperial Medicine and Bengal, 1850-1947*, New Delhi, Sage Publications, 1991; (c) Christopher J Nirmal, 'A study of public health in the Madras Presidency, 1882-1912', Ph D thesis, University of Madras, 1970; and (d) V R Muraleedharan, 'Development of

Health Care System in the Madras Presidency, 1919-1939', Ph D thesis, Indian Institute of Technology, Madras, 1988.

- 2 The number of peons of seems to have been reduced from 250 to 150 within the year 1906.
- 3 The resolution was proposed by T M Nair; refer letter from E S Lloyd, acting president, corporation of Madras, to the secretary to the government, local and municipal, dated August 31, 1906, in notes to G O 1975, MD, November 13, 1906.

References

- [1] Proceedings of the General Meeting of the Corporation of Madras (hereafter, PGMCM), 21 June 1910.
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- [5] PGMCM, February 15, 1910.
- [6] PGMCM, May 4, 1909.
- [7] Government Order (G O), 1437 (Public Health Department) August 28, 1923 (Tamil Nadu Archives [TNA], Madras).
- [8] Proceedings of the Special Adjourned Meeting of the Council November 17, 1923.
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- [13] G O 1393, Municipal Department (MD), August 8 1898, TNA.
- [14] Letter from the Surgeon-General, C Sibthorpe, to the Secretary to the Government of Madras, dated October 11, 1898 in (13).
- [15] G O 1812, MD, October 25, 1898, TNA.
- [16] Letter from R E Ellis, Acting President, Corporation of Madras, to the Secretary to the Government of Madras (Local and Municipal), dated September 7, 1898, in G O 1833, MD, October 27, 1898.
- [17] G O 750, MD, May 25, 1899, TNA.
- [18] G O 909, MD, May 11, 1905, TNA.
- [19] G O 1062, MD, June 8, 1906, TNA.
- [20] G O 613, Revenue Department, July 3, 1906, TNA.
- [21] G O 1975, MD, November 13, 1906, TNA.
- [22] G O 846, MD, April 22, 1907, TNA.
- [23] G O 677, MD, April 11, 1912, TNA.

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Women, Health and Development

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The pace of marginalisation of rural people, women, tribals, dalits, etc has accelerated with the adoption of structural adjustment programmes in many countries. If we are to assess its impact in the coming times, we need to be aware of the deterioration in their health and welfare status, already becoming visible. Women are especially affected by these policies given that their health status has shown little improvement in recent decades.

THERE is enough evidence to show that often, development policies adopted by governments have widened the disparities amongst sections of people. Analysis of the data shows that over the years, urban areas, as compared to the rural, and men as compared to women, have benefitted, and the gaps between these have widened (Karkal and Rajan 1988). Since poverty does not merely deprive individuals of the basic needs for survival, but makes them powerless to even take advantage of the available resources, the plight of the deprived sections has become more miserable over years. In turn, those in power continue planning such that small sections of the advantaged continue to reap benefits at the cost of the majority of Indian people.

Marginalisation of rural people, women, tribals, dalits, etc, not only continues unabated, but vested interests are promoting social and cultural practices which disadvantage marginalised groups. In fact, one can see the negation of progressive attitudes that were promoted through earlier social reforms. Selective abortion of female foetuses, female infanticide, sati, crimes against women, religious fundamentalism, and so on, are examples of this regression. The New Economic Policy (NEP) encouraging structural adjustment programmes (SAPs), liberalisation and export oriented policies, are expected to benefit those who already have a larger share in the nation's resources whereas they will push the deprived into lives that will be more miserable. There is already evidence that liberalisation policies have increased the hold of foreign capital on the Indian market, pushing the interests of the Indian 'common man' into the background. Privatisation of the economy has resulted in the virtual takeover of the process of development by the private sector. Mechanisation has driven out unskilled and semi-skilled workers from gainful employment. Women constitute a large proportion of these groups. In the absence of land reform, modern agricultural 'revolutions' (green, white, etc.) tend to result in

falling employment per hectare as land ownership becomes more unequal, farms become larger and large-scale mechanisation takes over. Tens of millions of small holders, tenant farmers and agricultural labourers have found themselves without sufficient land or sufficient work. In India, unaccounted numbers of rural families have become landless in the last three decades alone, turned away from the fields that they once tilled and harvested. At the root of this process lie investment policies which are capital-intensive rather than labour-intensive and they are being accentuated by the new economic policies.

It is now widely accepted that women contribute extensively to social processes through their involvement in production and reproduction. Yet women's access to resources is low; furthermore, even within deprived households their access to existing assets and resources is much lower than that of men. State policies moulded by class and gender bias adversely affect people's (especially women's) access to resources for this very reason. Class factors, household politics and childbearing have a profound and distinctive impact on a young woman. She is simultaneously a worker, a bearer of male heirs for the continuity of the husband's family line and of future workers for the nation's economy. It is thus inappropriate to analyse domestic organisation separately from the sphere of production. Biological reproduction may seem 'natural', but its social construction must still be analysed from a women's perspective.

While easily accessible, rational and humane medical services must be made available to all people irrespective of their capacity to pay, normal biological functions or social issues are seen as problems requiring medical solutions. The medicalisation of the human body complicates the health problems that people suffer from. Medicalisation is a cultural process with political implications, especially as more and more of everyday life comes under medical influence and supervision. This leads to serious loss of control over and confidence in women's own capacities and in their own bodies e.g. IVF promoted without adequate efforts to prevent infertility such as measures to diagnose and control pelvic inflammatory diseases (PIDs) and STDs and the unscientific use of IUDs. The medical profession has taken excessive charge of health concerns of people, irrespective of its ability to deal with them. Essentially non-medical states are increasingly defined in medical terms, for example technological devices are promoted even with uncomplicated births e.g. prenatal screening and menopause. Thus, medical interventions are used to 'treat' these conditions, and a medical framework is adopted to understand them. Unnecessary and invasive interventions such as high-tech diagnostic procedures, drug and hormone therapies, and surgeries are thus routinely justified. There is an urgent need to develop alternative policies and programmes that will correct the disparities that prevail and reverse the human and environmental degradation accentuated by the new poli-

cies. Actions in this direction are needed not only because they are in keeping with the objectives of the Declaration of Human Rights, to which India is a signatory, but because such a perspective has to be at the root of any efforts for human development.

HEALTH STATUS OF INDIAN WOMEN

The death rate for 1991 in India is 10 (per 1000 persons), which is close to 9 for the populations in the developed, industrialised countries [World Bank 1993]. However, this does not mean that the health status of people is the same or even comparable. The question is not so much 'how many' people die, but 'who' die? The infant mortality rate (IMR) for 1991 in India is 90 whereas the lowest known IMR in the world (in Japan) is 5 (per 1000 live births). Similarly the mortality rate among children below age five in India is 124. Reported estimates for deaths due to maternal causes in India vary from 390 to 2000 (per 100,000 live births). Deaths due to maternal causes have virtually disappeared in the developed industrialised countries.

Such comparisons discuss only the deaths, not the poor health or the morbidity situation of the people. For instance, for each maternal death in India it is reported that 17 women suffer serious health damage. (Dutta 1980). Such a morbidity pattern is not prevalent in the developed industrialised countries. To understand the morbidity conditions there is a need to review some of the work of nutritionists and other health scientists and to undertake appropriate research. The World Health Organisation (WHO) has developed an index known as disability adjusted life years (DALYs). This index measures the loss of life years due to deaths earlier than the expected life-span. Of the total DALYs lost in India, 56 per cent are lost in ages under 15 years. In contrast, in the developed industrialised countries, the loss of DALYs in ages under 15 is only 8 per cent. Most of the DALYs lost in the developed industrialised countries are in advanced ages (World Bank 1993). In simple terms this means that of those who die in India, more than half die even before they have reached adulthood. People in the West not only live much longer, but the majority of them live until old age.

Besides the anomalous pattern of deaths by ages, differences also prevail between the deaths of men and women. Women are generally believed to be biologically stronger, and given equal chances of survival, women live longer than men. In developed industrialised countries women have lower death rates at all ages. In contrast among Indian women death rates, higher than those for

TABLE 1: RATIO OF DEATHS OF FEMALES TO MALES

Age Groups	Ratio
0-4	1.11
5-14	1.22
15-34	1.31
35-49	0.72
50+	0.86

Source: Registrar General of India, 1983 and 1988.

the men till their reproductive ages are over. Till 1971 this limit was up to age 44 years. Ever since the FP programme has been aggressive in India, a change in the pattern of childbearing has occurred through terminal methods for women at an earlier age. It is now observed that until the age of 35, women experience higher death rates in comparison to men. Beyond 35, that is, after the completion of women's reproductive career is over, it is the men in India who have higher death rates as compared to the women.

With higher death rates for the younger ages, it is observed that age-group-wise the number of persons goes on decreasing as the age advances. In other words, the larger number of persons is in the younger age group. Since women have higher death rates in younger ages, their numbers in the population decrease more in comparison to men. Consequently in India there are fewer women in the population than men. Expressed as 'sex ratio', the number of women per 1000 men in the population is low in India. Over years the sex ratio of the Indian population has shown a declining trend. In 1901 there were 971 women per 1000 men, and by 1971 this ratio came down to 931. The census of 1981 showed an improvement and the ratio was 934. However recent figures available (for 1991) show that the sex ratio in India is 929.

Social customs reinforce and perpetuate the dependent role of women and deny them basic needs, influence their chances of survival. The pattern of higher mortality among women than among men, observed in India and in populations of other countries in the Indian sub-continent (except in Sri Lanka), is rather uncommon when compared with other regions. Higher mortality in general, or higher prevailing death rates, do not explain the differentials that are unfavourable to women. The highest mortality in the world is observed in the African countries, where women live longer than men.

A study by the UN (1988) based on the analysis of 78 life tables for the period 1945 to 1981, showed that the differences in mortality of the two sexes observed in the Indian sub-continent, were mainly because women had life expectancies much lower than values expected in all other countries. In other words, it is not as if men in India are in enviable situations, but that women are significantly neglected. The bias against women is expressed in denial of their due share in the social resources. Denial of adequate nutrition and medical attention, when needed, has resulted in higher mortality among women.

The undervaluation of women is at the root of the neglect resulting in higher mortality. Scrimshaw (1978) argues: the traditional assumption that high mortality leads to high fertility must be questioned. Often the reverse may be true. High fertility may be accompanied by the acceptance or even unconscious encouragement of high mortality.

Unregulated fertility accompanied by neglect of unwanted (girl) children is used as a way to regulate family size. Using data from the National Sample Survey, Malakar (1979) showed that this argument using selective neglect of girls for regulating family size was supported by the Indian data. Simmons and colleagues (1982) from their data concerning

post-neonatal mortality from Uttar Pradesh show that parents desire sons more than daughters. Their data also show that the girl infants are more likely to die in families where the wife had expressed a preference for no additional children or especially no additional girl children. Wherever an older male sibling aged less than three years was present, girls were found to be at a disadvantage.

That women suffer critical nutrient deficits from girlhood onwards is shown by ample available data. A study by ASTRA in rural Karnataka state showed that, of the total human energy contribution to the village 'energy matrix', the respective contributions of men, women and children were 31 per cent, 53 per cent and 16 per cent, indicating that women worked harder than men. Batliwala (1987) reports that she tried to calculate the energy expenditure for individuals in terms of kilocalories and compare it with the food intake. However, she was faced with problems since

...nutrition textbooks provided calorie costs for piano-playing and typewriting (but) they did not mention fetching water or gathering firewood. Secondly, only a limited number of agricultural activities were measured, compared with over 70 industrial and military activities. Finally, it was found that even for these no female equivalents were available. The few energy cost figures available for women, included such middle-class activities as sewing and singing, and women on the whole were listed under the heading of 'sedentary people'.

Batliwala says that the study pointed out with statistical evidence that the expenditure of energy by women on a day to day basis may be higher than that of men. Furthermore, in rural setting men's work is seasonal, whereas women perform not only seasonal activities (transplanting, weeding, harvesting) but the perennial, life-supporting tasks like fetching water and fuel, cooking and looking after children and old people in the family.

The final computation of calorie expenditure on various agricultural and domestic activities by men and women, was found to be: 2473 calories per day per man and 2505 calories per day per women. In contrast the estimated intake of calories was 3770 per day per man and 2410 calories per day per woman. Thus women faced not only a relative deprivation in comparison with men, but also absolute deficit vis-a-vis their calorie expenditure [Batliwala 1987:261]

Batliwala refers to Shatrugna's observations: (1) Women may not continuously lose weight, but they are definitely lighter than their desired weights; (2) Women have no energy reserves for emergencies such as illness, etc so that their mortality rates are higher in the event of an epidemic compared to well-fed women; (3) Women try to conserve as much energy as possible by cutting out on the quality of life. Of course they are called lazy, inefficient, slow and even cheats. But what they are trying to do is exist and work at basal metabolic rate (BMR) level, because they do not have surplus energy for briskness; (4) It is also possible that their cells are converting food into usable energy more efficiently. This could result in early wearing out of the cells and early aging.

Non-preference takes its largest toll in ages 1 to 4. The impact of discriminatory treatment to girls in allocation of food and in medical

attention is highest in these early ages of childhood. Impact of these discriminatory treatments is also observed in ages 5 to 14 and then during child-bearing ages. Inadequate medical care takes greater toll of these women of poor health. The first childbirth is particularly hazardous. Neglect of girls in the early ages is reflected in the high incidence of low birth weight babies for the survivors among these girls. Most childhood diseases have greater impact on male children when children of both sexes receive no discrimination in food and in medical attention. This is obvious from the fact that wherever the improvement in chances of survival of female infants had taken place they were without any special medical inputs for the female children.

The social definition of the appropriate age at which reproduction should commence also influences the expected social costs of rearing the child. Parents can reduce their economic liability by marrying off daughters at markedly younger ages. Data from countries that have shown improvements in the survival chances of girls, also invariably show a rise in age at marriage of girls.

For women another area of inequity comes from the society's refusal to acknowledge and reward the services that women render to the society. In the developing countries non-monetised sector, traditional labour intensive agriculture and subsistence production play an important role in the activities of the people. These activities take place mainly at the household level. Krishnaraj (1989) points out that,

Data systems whose concepts and methodologies were derived from the market system, did little justice to the altogether different milieu of the Third World economies, and especially the rural economies. Women are not present in the paid labour force, which is visible to the statistics, but are engaged in productive activities of household level, mainly the non-monetised or subsistence sector that render them invisible to statistics. Invisibility of women in data systems has come to be understood as caused mainly by the limitative definitions and

TABLE 2: CURRENT BODY WEIGHTS (KG) OF INDIAN WOMEN AND GIRLS OF DIFFERENT SOCIO-ECONOMIC GROUPS

Group	Urban						Rural
	Body Weight	HIG	MIG	LIG	IL	Slum	
Infants: 0-1 year	7.2	6.2	6.0	5.9	5.9	5.7	5.8
Children: 1-3 years	11.8	11.2	10.6	9.5	9.5	9.0	9.1
4-6 years	17.7	15.7	14.4	14.0	14.3	13.6	13.6
7-9 years	25.9	19.6	19.9	18.8	18.7	18.3	18.3
10-12 years	35.0	26.4	27.3	25.4	25.4	24.0	24.6
Adolescents: 13-15 years	47.8	39.5	37.5	35.4	35.7	33.8	34.7
16-18 years	49.7	43.8	43.1	41.7	41.6	40.8	41.1
Adult women	50.0	50.3	48.2	43.5	44.6	41.9	42.5

Source: Nutrition Foundation of India, *Women and Nutrition in India*, Special Publication Series 5, New Delhi, 1989.

concepts employed that are particularly unsuitable to women. By leaving out much of what women actually do, because they do not fit the definitions, women's contributions go unrecorded. This invisibility contributes significantly to the lowering of the status of women. Women's work that is crucial to survival, becomes marginal and they are believed to be 'dependent'.

This bias against women also comes from cultural factors that find women reported as being an 'outside labour force' because they find very little prospect of finding work. Many women who are officially classified as being 'unavailable for work' would be available to take up work only if their domestic responsibilities were made lighter through reducing the drudgery of household activity by the sharing of work by family members, especially men.

In agricultural countries such as India, the participation rates for women are influenced by their participation in the agriculture. In the third world, unpaid family work, traditional labour-intensive agriculture and subsistence production constitute the major economic activities of the people. These activities take place mainly at the household level.

The role of women in agriculture is crucial not only because of their number engaged in it but also because of the variety of activities which they perform. Except for ploughing, women are involved in all the operations required for growing foodgrains and vegetables and rearing livestock. Their involvement in the agriculture can be observed in compost preparation and application, land preparation, specially clod breaking and land levelling, sowing and transplanting, weeding, harvesting, cleaning, drying and market-produce selling. In livestock-keeping they collect fodder, clean animal shed, milk milch animals and process dairy products. All this in addition to their regular household duties such grinding and dehusking grain, fetching drinking water, collecting firewood, preparing family meals and looking after children and the old. In reality women work harder than men and get little economic credit for doing so. Women are also seen carrying basketsful of vegetables, fruits and other agricultural produce on head or back for marketing or for door to door selling. [Bhattarai and Karmacharya 1981]

Technological developments have also harmed the interests of women. Because of rapid industrialisation and mechanisation that have destroyed traditional crafts, poor women in the Third World face extensive and acute unemployment. Retention in traditional 'unorganised' units where they are not covered by the factory laws and their absorption into new type of unorganised units appear to be because of the special difficulties women face such as illiteracy, low technical skill, lack of opportunities into the more structured units. Over and above these, women's mobility is restricted due to family obligation as well as attitudes regarding what is permissible work for them. The major problem for women seems to be not so much being pushed out, which is true in some sectors, as staying where they are. While men move up through education to higher jobs, women continue to hold traditional occupations that ensure bare survival for the family, but do not assure adequate economic returns. Women's employment provides men and society in general an assurance against unemployment and sickness, against inflation and wage cuts in their petty ventures [Krishnaraj 1989].

In agriculture, high yielding variety (HYV) technology, along with irrigation, led to increased use of labour time per unit area cultivated

because of higher labour use in the application of new inputs, higher cropping intensity and higher yields. However Dasgupta (1977) observes:

...evidence from some village surveys (in India) shows that the demand for hired labour goes up with agricultural prosperity and irrigation, but such evidence shows only a shift from family labour to hired labour and not an increase (in fact decrease) in the overall rate of participation of the village population in the workforce.

Studies have also shown that, as the economic conditions of the families improved, women in the families withdrew from the workforce. This is supposed to have happened because of the demand for more skilled work and this being fulfilled by hired labour rather than providing skills to the family labour, especially women. Another argument forwarded is that as economic conditions of the families improved, men considered it necessary to withdraw their female family members from labour force as a sign of their (men's) improved status [Dasgupta 1977].

Acharya and Bennet (1983) made an interesting observation that women's involvement in market activities gives them much greater power within the household in terms of their input in all aspects of household decision making. Limiting women's involvement to the domestic and subsistence sectors reduces their power vis-a-vis men in the household. It is important to note that in patrilineal systems land is owned by men and as such the subsistence production assets are owned and controlled by men. Women in market economy on the other hand generate their own production assets, and improve their own status.

ACCESS TO HEALTH CARE

Inherent in each system of health care is a specific attitude towards people and their bodies. The allopathic system tends to view people as composed of distinct mechanistic organ systems like the gastro-intestinal tract, the cardio-respiratory system, the uro-genital tract, the nervous system, etc. The Indian indigenous and homeopathic systems, in contrast, see human health more in terms of balances and flows of doshas and energies. They are less concerned with the physical boundaries and connections of organs. The allopathic approach to medical treatment is characterised by attempts to fight, remove or eradicate causative agents (germs, allergens, defective parts) and to suppress symptoms. On the other hand, the indigenous and homeopathic systems, aim towards restoring balances and flows in the person without considering the parts separately. The latter approach is called holistic. Realistically speaking, each approach has certain strengths and weaknesses.

Whatever the particular health system, the healer (doctor, vaidya, hakim, vaidu) can exploit his (or rarely her) power over the sick person (patient) and relatives, and often does. Even when benevolent, the

relationship is usually patronising. It is doubly so with women who are sick. In this respect, there is little difference between practitioners of the holistic and non-holistic systems. Women sometimes tend to prefer the holistic approaches, perhaps because allopathy is understood to be too 'strong' and invasive. However, this comparable gentleness is no guard against patriarchal attitudes which have become embedded even in holistic health systems.

In spite of the fact that women are producers and reproducers, their access to health care is extremely poor. Various reasons account for this low access. Firstly, women are seen either as mothers or potential mothers by the public health services. Any problem related beyond that (such as mental health or marital violence, for example) are not seen as a priority by the health services for healing women. In India, where the obsession of the state is in reducing numbers of people, infertility also is not the concern of the government health services, in spite of the socio-logical consequences of the same for women. On the other hand, invasive reproductive technologies are peddled in the name of giving infertile women choice. The question of reducing potential infertility among women through the prevention or early treatment of TB, pelvic inflammatory diseases, undernourishment and complications from hazardous contraceptives, is not considered.

The state's undue emphasis on population control also reduces the access of women to health care services, especially in the crucial years of pregnancy and childbirth. When health workers are busy 'cultivating' family planning cases, it is difficult to imagine that women will feel comfortable seeking ante-natal or post-natal care from them. The watered-down programme of maternal and child health (MCH) suffers a major obstacle. With regard to quality of service, even the record of the favoured 'family planning' programme is unsatisfactory. The Indian Council of Medical Research reported a study of 43,550 hospital deliveries where 52 of the women had given birth after sterilisation (33 tubectomies and 19 vasectomies) [ICMR 1990]. Another 22 women reported having conceived while using an intra-uterine device [ICMR 1990].

Locations of the PHCs also make it difficult for women to avail of health services. The OPD of most PHCs functions between 8:00 am and 12:00 noon and reopens from 4:00 to 6:00 pm. PHCs serve several villages and villagers have to commute to reach to the PHC. Often state transport buses do not reach the PHC village well in advance for patients to receive medical treatment and often the last bus from the village leaves before the OPD closes. Both patients as well as many of the PHC staff (including the doctor, sometimes to whom the government provides residential quarters near the PHC) travel by the same bus to and fro, and so the delivery of health care suffers. Short supply of health personnel and of drugs makes the journey to the PHC futile. [Avasthi et al, 1993]

The private sector on the other hand is totally unaccountable to people's real health concerns. The treatment is expensive and not always rational or ethical. In one of the studies it was found that women suffer more often from chronic ailments (such as anaemia, backache, white discharge, weakness, etc as compared to the men in the family. Most of people's (and especially women's) illnesses are a result of over-work, undernutrition and poverty. The health services cannot cure women of these problems. In reality what happens is that the family realises that women don't get well easily and so the access of women to medical care, especially that which requires more time and money gets reduced in the cases of women [Gupte and Borkar 1987].

The current health policy of the Government of India evolved under pressures from the World Bank is to restrict government health services to preventive care and allow the private sector to take over all other health services. This policy will also allow multinational pharmaceutical industry free access to the Indian market. Thus, the prices of drugs which are already beyond an average Indian's reach will spiral. Cuts in the health budget are squeezing out the poor from access to ordinary health services. This changed situation will further increase the burden of women who care for the family in sickness.

A low self-perception of women as well as the culture of silence' in which they are brought up makes them endure the physical and mental suffering they experience and this further reduces their access to health care. Taught to believe that menstruation is dirty, a woman is hardly in a position to seek medical intervention for white discharge or for menstrual disorders. Personnel in public services have little patience to listen to stories of side-effects of contraceptives or of a woman's husband's impotence. In fact, once she is terminally sterilised a woman is virtually struck off the mental registers of the health service providers. The private sector then steps in when a tubectomised woman suffers menstrual chaos (maybe related to hurried sterilisations in camps), and offers hysterectomy as the solution at a price that is a few years of daily wages of the woman.

The health of 'deviant' women, (who include single, disabled, widowed, deserted, lesbian, mentally handicapped and so on) is a matter of negligible concern to the public health services that rightfully belong to the people. In the same light, sexuality of women (and men) is never addressed, much less the adverse consequences of having neglected the same. Thus women suffer silently of depression, anxiety or of more severe mental disorders because they have not received either the physical or emotional support from medical personnel at the required time.

The system does not locate the health problems of women in the real context of oppressive man-woman relations. Treatment ignores the need to change these relations. Ill-effects to women's health arising out of such relations, such as reproductive tract infections or injury and mental trauma,

are not treated seriously enough. The effect of gender division of labour on women's health is unrecognised, including the health costs of invisible work at home and in the informal sector.

Instead of increasing the access of women to health care and to reproductive rights, one observes the trend to decrease it. The move to withdraw maternity benefits for women beyond the second child or of advocating hormonal implants and injectables as contraceptives, should be seen in the same light. On the one hand there are the women who have little or no access to trained medical supervision at the time of childbirth, in spite of high gestational risk; on the the hand, urban middle class women frequently undergo repeated Caesareans during childbirth.

The fact that the same illness for a woman very often poses quite a different problem than it does for a man has also to be fully understood. Tuberculosis for a man is bad enough, but for women not only does the continued treatment or stigma reduce her status at home, but the possible infertility resulting from the illness can cause untold misery. Marital violence, desertion and death become real possibilities for this woman. The social sanction for these crimes is more overt when the woman fails to perform her expected duties at home, namely housework and bearing of male children.

Women's indigenous knowledge of health care has been marginalised or lost, and their continuing role in maintaining the health of their families and communities has been devalued. Self-help measures and remedies that address women's ailments, passed down through generations, are being replaced by mystifying pharmaceutical and high-tech paraphernalia. Not surprisingly, this leaves women with a sense of separation from their own bodies.

In the name of increasing access of women to medical care, there is further medicalisation of women's bodies and functions. When we consider the immense potential of the multinationals/ pharmaceuticals to make profit by peddling drugs and contraceptives to healthy women for birth control, menopause and so on, it is of no great surprise that the argument of giving women more 'choice' would be popular even among the establishment. We have to view pre-natal sex-determination, hormonal replacement therapy and the indiscriminate use of tranquilisers for women in this light.

Privatisation would only reduce women's right to existing health services. We can demand good quality services from the public sector because they are funded through the indirect taxes that the people including the poor pay. The private sector is kept in some check because of the mere existence of the public health services. Once the private sector takes control over the public arena, there will be no end to the greed of profit-motivated medical personnel. Compounded with the New Economic Policy, structural adjustments and intellectual property rights (including

the patent laws for drugs), one can foresee a gloomy picture for women's health unless we plan effective strategies to resist anti-people moves of the government, the private sector and imperialist nations. We have also to view with some concern the sudden interest of funding agencies in the reproductive and sexual health of our women. Our plan for the next decade has to take into account the feminist interpretation of sexual rights and reproductive health.

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Health Expenditure Patterns in Selected Major States

Ravi Duggal

State sector investment in public health is miniscule compared to the demand for health care in the country. Inter-state comparisons show a direct correlation between levels of public health investment and the health status of the population, and rural-urban variations indicate the gross neglect of the countryside with regard to public health services and facilities.

ACQUIRING complete knowledge about health expenditure patterns in India is at present a near impossible task. This is largely due to the fact that about three-fourths of such expenditure is being incurred privately. While state sector expenditures are documented in budget papers, one can only make estimates for the private sector.

Here we attempt an analytic review of the public health expenditures for selected major states of the country from the available latest budget documents (1992-93). The states included have not been selected on the basis of any specific criteria but purely because of availability of budget-papers at a given point of time. A more detailed analytic paper is planned which would include all states with time series data. However, the states included presently may be considered representative as both geographical spread and various socio-economic levels of development are covered. Private sector expenditure are excluded from the scope of this paper.

Our analysis clearly establishes the low level of investment in the public health sector. The investment is miniscule compared to the demand for health care in the country. While inter-state differentials bring out sharply a direct correlation between the level of public health investment and the health status of the population, rural-urban variations indicate the gross deprivation of rural populations with regard to public health care. The paper further highlights that an unusually large proportion of the available funds goes to support salaries, especially, so in the rural health services and the disease control programmes.

The main source for the data included in this paper is the 1992-93 budget documents of the various states, the detailed demand for grants. This document includes a three year record of expenditure - 1990-91, 1991-92 (revised estimate) and 1992-93 (budget estimate). From these budget papers most of the relevant (and more or less comparative) heads and subheads of expenditure have been included in the analysis as explained in the next few paragraphs.

In spite of a national system of classifying heads and subheads of accounts there is still an incomplete standardisation in presenting budgetary informa-

tion. Though the major and minor heads are the same across states the placement of the latter under the former is not standard. For instance the subhead PHC is under rural health services of the 'medical' head in some states, and under the head 'public health' in other states. Similarly, sub-centres are under family welfare in some states and under public health in others. ESIS in many states is under urban health services under the medical head, in others under medical education and in still others outside the ministry of health under labour welfare. A few states include water supply under the ministry of health whereas most show it under rural and urban development.

This variation, to some extent, creates problems in comparison across states as well as in presenting analysis of data by major heads. Another problem is caused by the separation in plan and non plan spending. This spreads the expenditure figures across the 200-300 pages of the ministry of health budget. Again, there are as many ways of presentation of plan/non plan figures as there are states. This compounds the problem of compilation for the purposes of analysis. As a consequence one is not sure that the figures one compiles are complete, especially with regard to plan expenditures which in some states are shown under many categories like state plans, Seventh Plan commitments, Eighth Plan commitments, centrally sponsored schemes, central schemes, etc, and often in separate volumes. The result is that to compile the total expenditure, for instance, on National Leprosy Eradication Programme the hunt is an extremely time consuming task.

Further, a few states even show expenditures for health sector incurred outside the ministry of health, like construction of buildings for health facilities spent under department of public works or upgradation of PHCs in tribal areas under the tribal development plan etc. Most states do not show such expenditures under the ministry of health. What does one do?

TABLE 1: INPUT AND OUTPUT INDICATORS AND RANKS OF SELECTED STATES

	Input		Output			Input Rank	Output Rank
	1992-93 Health Exp Rs Per Capita	1990 Beds 100,000 Popln	1989 Doctors Per 100,000 Popln	1988 IMR Live Births	1988 Child Mortality Per 1000 0-1 Yrs		
Punjab	86(1)	116(4)	76(2)	62(2)	21(2)	1	2
Kerala	78(2)	263(1)	55(4)	28(1)	8(1)	1	1
Tamil Nadu	67(3)	88(5)	75(3)	74(5)	21(2)	4	3
West Bengal	58(4)	83(6)	47(7)	69(4)	22(4)	6	5
Maharashtra	57(5)	147(2)	86(1)	68(3)	22(1)	3	3
Gujarat	55(6)	129(3)	50(6)	90(7)	31(7)	5	7
Andhra Pradesh	49(7)	62(7)	52(5)	83(6)	27(6)	7	6
Madhya Pradesh	35(8)	36(8)	15(8)	121(8)	51(8)	8	8

(Figures in parentheses are ranks).

Source: Compiled from *Health Information of India 1991*, MoHFW, GOI.

If all major heads of health (a/c nos 2210, 2211, 2251, 3606, 4210, 4211, 6210, 6211) are to be considered as the basis for health expenditures, rather than what the ministries of health spend, then one will have to scan the budgets of most ministries and departments to get a complete coverage of the health account heads. We confine this discussion to the ministry of health spending and within that exclude family welfare. The effort here will be to analyse the expenditure on selected major health programmes/interventions for which data can be standardised across the states to reveal patterns and permit comparison.

In the analysis of health expenditure below we are looking only at revenue expenditures, both plan and non-plan, under the major head medical and public health (a/c 2210 of the ministry of health) of the consolidated fund. Thus family welfare and water supply and sanitation are excluded, as are all capital expenditures.

HEALTH EXPENDITURES AND HEALTH STATUS

The overall health status of a population is closely linked with overall socio-economic development. This does not need to be proved because it is well recognised globally. That investment in health care can independently improve health status has also received wide recognition. China, Sri Lanka, Costa Rica, Mongolia, Nicaragua and Kerala are well known examples where health status has improved substantially with economic development remaining at very low levels [World Bank 1993]. This statement in no way intends to discount the importance of overall economic development, especially income growth and distribution. Health services data from these eight states also lend support to the hypothesis of the importance of increased investment in the health sector. It clearly establishes the link between health care investment and health status. Table 1 shows the close correlation between input variables (health expenditures, availability of hospital beds and doctors) and output variables (IMR and child mortality) - higher the input rank of a state better the output.

The relationship is especially stronger between public health care spending and output rank. Thus, among the eight states Punjab, Kerala and Tamil Nadu have the highest health expenditures as well as the best health status measured in terms of infant mortality and child mortality rates. These states also have the most developed health infrastructure along with other states like Karnataka and Maharashtra. In 1992-93 the overall public health expenditure in the country (excluding family welfare and water supply and sanitation and capital expenditures) is estimated at Rs 5000 crore or Rs 58 per capita (Table 2). If we add family welfare, water supply and sanitation and capital expenditures, as is traditionally done, then public health expenditure at Rs 8500 crore works out to Rs 99 per capita in the same year [Ministry of Finance 1992].

Among the states, as mentioned earlier Punjab and Kerala have the highest expenditures averaging Rs 86 and Rs 78 per capita, respectively in 1992-93. They also have one of the best developed health infrastructures in the country (Maharashtra has the highest per capita availability of doctors but nearly half of the doctors in Maharashtra practice in Bombay city alone) (Maharashtra Medical Council list 1992). The lowest health care spending among these eight states is in Madhya Pradesh with an expenditure of only Rs 35 per capita. Andhra Pradesh (Rs 49 per capita), Gujarat (Rs 55 per capita) and surprisingly Maharashtra (Rs 57 per capita) fall below the all-India average of public health expenditure as defined here.

The central government expenditure shown in Table 2 is mostly (86 per cent) on central government hospitals, medical colleges and hospitals and

TABLE 2: HEALTH EXPENDITURE IN SELECTED STATES 1990-1993

		Health Expenditure* (Rs Lakh)	Health Expenditure* (Rs per capita)
Punjab	1990-91	14,671	74.10
	91-92	17,593	87.09
	92-93	17,663	85.74
Kerala	1990-91	17,698	61.88
	91-92	19,288	66.28
	92-93	22,909	77.92
Tamil Nadu	1990-91	31,318	57.15
	91-92	34,531	62.00
	92-93	37,720	66.76
West Bengal	1990-91	37,700	56.86
	91-92	36,891	54.25
	92-93	40,477	58.16
Maharashtra	1990-91	40,396	52.67
	91-92	44,105	55.97
	92-93	46,209	57.19
Gujarat	1990-91	19,543	48.49
	91-92	21,690	52.65
	92-93	23,205	55.26
Andhra Pradesh	1990-91	26,531	40.94
	91-92	28,780	43.34
	92-93	33,360	49.13
Madhya Pradesh	1990-91	19,451	30.20
	91-92	21,757	32.87
	92-93	23,630	34.80
Central Government	1991-92	38,174	4.52
	92-93	51,166	5.94
	93-94	52,996	6.02
(Excluding grants)			
All India	1992-93 ^b	5,00,000 ^a	58.14

* Only Revenue expenditure of A/C 2210 of Ministry of Health.

^b Estimated by author based on figures published by Department of Economic Affairs and the Reserve Bank of India.

Source: Detailed Demand for Grants, 1992-93, respective states.

medical research. The central government does spend substantial sums on various health programmes, mainly national disease programmes, but that is mostly as grants to the states and accounted for in the state expenditures – of the total central health department budget in 1993-94 grants to states and union territories worked out to 32.5 per cent of the centre's health department budget (excluding family welfare and water supply).

The first fact evident from the data discussed above is that the public health sector is a very small component not only of the overall economy (less than 1 per cent of GDP) but also of the public sector as a whole (which accounts for over one-third of India's GDP). As a consequence of the insufficient investment in the public health sector the private health sector has seized the advantage and has grown very rapidly, especially in the last two decades and that too with support and subsidies from the public sector [Jesani and Ananthram 1993]. For a poor country like India where nearly two-thirds of the population lives at or below the subsistence level such a development may not be the best thing for the health status of the people – in fact evidence is indicative of slowing down of decline in mortality rates in the last decade or so [Ministry of Home Affairs 1992]. Another fact emerging from the data presented above is the considerable variation across states in health care spending—between the lowest (MP) and the highest (Punjab) spender the difference is nearly 2 1/2 times. As mentioned earlier the level of spending gets reflected in the level of development of the health infrastructure — generally, higher the health expenditure better is the reach and spread of the health infrastructure.

We are well aware that rural-urban differences in the distribution of health care services are extremely sharp. Table 3 shows clearly the wide variation of availability of hospital beds and doctors in rural and urban areas of the country. There is also a wide variation in the availability of health services in the rural and urban areas as of the eight states under discussion (Table 4). Kerala and Punjab have extremely low disparities in infrastructure availability between rural and urban areas whereas Madhya Pradesh has the highest disparity (of course, among all states Bihar is the worst off with urban/rural disparity being 81 times for hospital beds). In

TABLE 3: RURAL-URBAN DISPARITIES IN HEALTH CARE SERVICES, 1992

	Hospital Beds Per 100,000 Population	Allôpathic Doctors Per 100,000 Population	All Doctors Per 100,000 Population
Rural	17	12	37
Urban	254	151	307
Total	76	47	105
Urban/Rural Disparity (times)	15	13	8

Source: Estimates based on information published in *Health Information of India* and the Economic Tables of Census of India.

Bengal, Maharashtra and Gujarat the national average holds good for hospital beds, whereas for doctors only Madhya Pradesh among these states is worse than the national average in rural-urban disparity.

Disaggregating public health expenditures in rural and urban areas is a difficult task because separate accounting of expenditures for rural and urban areas is done only selectively in the budgets. It is only for medical care services (under the medical major head of a/c 2210) that a more or less clear demarcation between urban hospital and dispensary expenditures on one hand and rural hospital, dispensary and PHC expenditures on the other hand is available. Hence rural-urban differential analysis is restricted to only this component of health expenditure. But it may be noted that these expenditure account for between 74 per cent (Andhra Pradesh) and 90 per cent (Kerala) of all health expenditures as defined for the present analysis. Rural and urban health expenditures vary considerably across states both in terms of volume as well as disparities within the state (Table 5).

The highest expenditures on urban medical care (including medical education and ESIS) in 1992-93 are in Kerala (Rs 195 per capita), Punjab (Rs 149 per capita), West Bengal and Tamil Nadu (Rs 142 per capita each) and the lowest (surprisingly) in Maharashtra (Rs 75 per capita) and Madhya Pradesh (Rs 79 per capita). Table 5 also reveals that the growth in urban health expenditures between 1990 and 1993 has been negligible, both in per capita and percentage terms. Where rural health expenditures are concerned (rural hospitals, dispensaries and PHCs) Punjab outscores all the states with a rural health expenditure of Rs 44 per capita, followed by Maharashtra (Rs 27 per capita) and Kerala (Rs 23 per capita) in 1992-93. In the same year the lowest rural health expenditures were in Andhra Pradesh (Rs 10 per capita), Madhya Pradesh (Rs 13 per capita) and West Bengal (Rs 14 per capita). These level of expenditures clearly support the earlier discussion relating to health infrastructural disparities; the states

TABLE 4: RURAL-URBAN DISPARITIES ACROSS STATES

	Hospital Beds Per 100,000 Population (1988)			Doctors Per 100,000 Population (1990)		
	Rural	Urban	Urban/Rural Disparity (Times)	Rural	Urban	Urban/Rural Disparity (Times)
	Andhra Pradesh	9	203	23	13	144
Gujarat	22	346	16	20	115	6
Kerala	198	481	2	39	117	3
Madhya Pradesh	4	145	36	3	55	18
Maharashtra	21	308	15	24	117	5
Punjab	68	233	3	76	260	3
Tamil Nadu	12	237	20	18	202	11
West Bengal	17	264	15	27	155	6

Source: Same as Table 3.

having higher rural health expenditures are the same ones which have a higher level of health infrastructure development in rural areas.

With regard to the share of rural and urban health expenditures in total health expenditures Kerala (68 per cent) and West Bengal (67 per cent) have the highest urban health expenditures whereas Punjab (36 per cent), Maharashtra (28 per cent) and Madhya Pradesh (27.6 per cent) have the highest rural health expenditures.

We have seen earlier the rural-urban disparities in health care provision (Table 4). The states having high disparities in provision (Tamil Nadu, Andhra Pradesh and Madhya Pradesh) also show relatively high disparities between urban and rural health expenditures. However, states like Kerala and Bengal, though having a relatively better distribution of provision, also have high disparity between rural and urban health spending, the former with relatively high per capita rural spending and the latter with low rural spending. Punjab and Maharashtra have the lowest disparity in urban-rural health care expenditures (Table 5) and both states (along with Kerala) have relatively well developed rural health services. Another aspect of urban-rural disparity in health care provision is related to the role played by local governments. The rural-urban disparities discussed above exclude provisions by local bodies like municipal corporations, municipalities, district panchayats, etc.

The participation of the local bodies in provision of health care services has not helped in reducing rural-urban inequalities. On the contrary the gap has widened because the urban local governments make significant investments in the health sector — as much as one-fourth to one-third of their budget — whereas for rural local bodies health care is not an important function because of the extremely limited resources at their disposal [NIUA 1989; Duggal 1992].

MAJOR HEALTH PROGRAMMES

Since there is a wide variation in presentation of expenditure data in the budgets across states only a few major sub-heads are amenable to standardisation and facilitate a comparison. Table 6 gives percentage share for six sub-heads of public health spending. It comes out very sharply from the data presented in Table 6 that little variability across states exist in distribution of resources for various programmes. Urban hospitals and medical education take a more or less similar share of the health care budget in all states. However for PHCs and disease control programmes there are some exceptions. For instance, both Punjab and Kerala spend a very small proportion on disease control programmes in comparison to other states. This may partly be due to the fact that both these states have brought under control most of the diseases under the national programmes and therefore presently manage with lower allocations for disease control programmes.

In case of expenditures on PHCs Punjab spends one-fourth of its health budget under this subhead. As discussed earlier this is because Punjab has the most developed rural health infrastructure. Kerala's share for PHC expenditures is low perhaps, because it spends a larger proportion on rural hospitals — Kerala has an exceptionally high rural hospital bed : population ratio (see Table 4).

The only other unusual fact revealed by Table 6 is the very high administrative cost in Maharashtra which takes away a whopping one-fifth of the health budget. One plausible explanation is that Maharashtra has an elaborate and large health bureaucracy. Another explanation perhaps may lie in accounting jugglery with Maharashtra including a large part of the

TABLE 5: RURAL-URBAN DIFFERENTIALS IN HEALTH CARE SPENDING

	Urban Health Services ^a		Rural Health Services		Urban/Rural Disparity (Times)
	Rs Per Capita	Per Cent of Total Health	Rs Per Capita	Per Cent of Total Health	
Punjab					
1990-91	124	50	38	36	3
91-92	147	50	47	38	3
92-93	149	52	44	36	3
Kerala					
1990-91	171	70	16	20	11
91-92	169	68	20	22	8
92-93	195	68	23	22	8
Tamil Nadu					
1990-91	109	65	14	17	7
91-92	120	66	15	16	8
92-93	128	66	15	15	8
West Bengal					
1990-91	142	68	13	17	11
91-92	133	67	13	18	10
92-93	142	67	14	17	10
Maharashtra					
1990-91	76	55	19	22	4
91-92	77	53	23	25	3
92-93	75	52	26	28	3
Gujarat					
1990-91	84	59	15	21	6
91-92	91	60	16	19	6
92-93	96	60	16	19	6
Andhra Pradesh					
1990-91	92	59	9	16	10
91-92	96	60	9	16	11
92-93	106	59	10	15	11
Madhya Pradesh					
1990-91	68	51	12	31	6
91-92	75	53	12	27	6
92-93	79	53	13	28	6

^a includes medical education and ESIS.

Source: Detailed Demand for Grants, 1992-93, respective states.

programme staff under the head direction and administration in contrast to other states which may show them under the respective programmes. This is only a hunch and can be sorted out with a more closer look at the detailed notes to the state accounts.

Special attention for selected diseases has been a constant feature of India's public health intervention strategy. A special characteristic of these programmes has been the significant role which the union health ministry has played in providing additional resources (sometimes com-

TABLE 6: PERCENTAGE SHARE IN EXPENDITURE OF SELECTED SUBHEADS

	Urban Hospitals (Allopathic)	Med Education (Allopathic)	Disease Control Programmes	PHCs	Direction and Administration	Others*
Kerala						
1990-91	40.44	10.00	4.97	6.61	1.83	36.13
91-92	36.01	9.67	5.45	8.41	1.64	38.82
92-93	38.25	10.25	6.11	8.63	1.74	35.02
Gujarat						
1990-91	32.16	9.99	13.81	12.47	1.92	30.01
91-92	32.16	8.85	15.01	9.94	1.95	32.09
92-93	33.36	9.03	15.36	9.54	1.77	30.94
Andhra Pradesh						
1990-91	40.39	8.51	20.19	14.91	2.49	13.51
91-92	39.84	8.79	20.46	14.32	2.40	14.19
92-93	37.71	8.96	21.61	13.83	3.84	14.05
West Bengal						
1990-91	39.42	8.29	11.40	12.77	6.73	21.39
91-92	38.34	7.56	10.73	12.29	7.17	23.91
92-93	37.94	7.36	11.16	12.01	7.14	24.39
Punjab						
1990-91	16.25	NA	9.26	25.25	2.23	47.01
91-92 ^a	16.16	NA	11.37	26.29	2.04	44.14
92-93	16.23	NA	11.38	23.52	2.18	46.69
Tamil Nadu						
1990-91	43.82	9.37	14.55	11.35	3.19	17.72
91-92	43.50	10.09	14.04	11.00	2.94	18.43
92-93	40.70	9.57	13.10	10.58	3.22	22.83
Maharashtra						
1990-91	30.44	8.42	15.41	NA	19.57	26.16
91-92	29.10	8.35	13.98	11.45	20.59	16.53
92-93	28.82	7.38	14.48	11.25	20.80	17.27
Madhya Pradesh						
1990-91	34.79	6.21	15.01	20.38	1.62	21.99
91-92	34.76	6.79	14.09	17.31	1.55	25.50
92-93	35.02	6.77	13.06	17.89	1.49	25.77

^a Urban hospital exclude teaching hospital for which data was difficult to compile; others in the case of Punjab includes Medical education and teaching Hospitals and disease Control refers to Public Health major head.

* Others includes ESIS, rural Hospitals, CHCs and dispensaries, non allopathic systems, grants to local bodies and NGOs etc.

Source: Same as Table 5.

plete) to the states in the war against these diseases, mainly smallpox (in the past), malaria, leprosy, tuberculosis and now AIDS. Further, in recent years substantial international assistance has been mobilised for increasing resource allocation to these disease control programmes.

In Table 6 we have seen that states like Andhra Pradesh (22 per cent), Gujarat (15 per cent), Maharashtra (14 per cent), Tamil Nadu and Madhya Pradesh (13 per cent each) spend a higher share of their budget on disease control programmes. In terms of per capita expenditures Andhra Pradesh (Rs 11 per capita), Punjab and Tamil Nadu (Rs 9 per capita) have higher expenditures and Madhya Pradesh and Kerala the lowest (Rs 5 per capita).

In all the states the National Malaria Eradication Programme takes away the largest share of expenditure on disease control programmes averaging 55 per cent of such expenditures. This however does not mean

TABLE 7: SHARE OF SELECTED DISEASE CONTROL PROGRAMMES

	Disease Control Rs Per Capita	Percentage Share in Disease Control		
		Malaria	Leprosy	Tuberculosis
Kerala				
1990-91	3.08	36.3	25.1	6.3
91-92	3.61	32.1	31.4	6.3
92-93	4.76	30.0	29.3	6.1
Gujarat				
1990-91	6.70	42.2	16.4	22.8
91-92	7.90	38.6	14.1	21.9
92-93	8.49	47.7	14.3	21.4
Andhra Pradesh				
1990-91	8.27	62.8	28.7	2.5
91-92	8.87	59.9	28.6	3.2
92-93	10.62	56.6	26.6	3.1
West Bengal				
1990-91	6.48	56.6	20.2	8.6
91-92	5.82	47.3	20.7	13.0
92-93	6.49	45.0	19.5	12.5
Punjab				
1990-91	6.86	NA	NA	NA
91-92	9.90	NA	NA	NA
92-93	9.76	NA	NA	NA
Tamil Nadu				
1990-91	8.31	NA	32.3	9.5
91-92	8.70	NA	33.1	10.8
92-93	8.75	NA	32.3	10.9
Maharashtra				
1990-91	8.12	59.8	20.9	10.0
91-92	7.83	59.1	23.0	7.5
92-93	8.28	59.0	24.0	6.9
Madhya Pradesh				
1990-91	4.53	56.4	20.2	1.1
91-92	4.63	54.7	20.5	1.3
92-93	4.73	54.9	20.2	1.3

that the malaria programme gets all the funds. This is again an accounting problem. The malaria workers of the erstwhile vertical malaria program constituted the largest paramedic workforce. After integration of health programmes in the mid-1990s these workers (and other staff) who are now multipurpose workers carrying out tasks related to the various disease and other programmes continue to get their salaries from the 'malaria' account head. This is the reason why allocation to malaria appears this huge in comparison to other disease programmes. Across states there is some variation with Kerala (30 per cent) recording the lowest proportion of expenditure for malaria and Maharashtra (59 per cent) the highest.

The National Leprosy Control Programme gets the next largest allocation with 25 per cent of the share on average. Tamil Nadu (32 per cent) and Gujarat (14 per cent) have the highest and lowest share of expenditure, respectively, for leprosy. Like malaria, variation in leprosy expenditure is small across states because leprosy continues to be a vertical programme with strong central control. Tuberculosis control, except for Gujarat (21 per cent), gets a very low share and appears to be the most neglected disease control programme averaging less than 10 per cent of the share of disease programmes. Among all the diseases covered by national programmes tuberculosis is the most prevalent as well as the most fatal one but it gets one of the lowest allocations. In fact a national evaluation of the TB programme by a joint GOI-WHO-SIDA team revealed that TB cases tended to concentrate in the district TB centre and the drug supply was so poor that effective supply was available for less than one-third of the registered cases.

The preceding discussion has highlighted the low level of public health spending in most states, the wide rural-urban disparities in spending and the large variation in spending across the states for most health programmes. How effectively is this allocated amount spent? Here we look at the line items

TABLE 8: RANGES (1992-93) AND MEANS (1990-93) OF EXPENDITURES ON SALARIES ETC OF SELECTED PROGRAMME

	Salaries		Materials and Supplies	
	Range	Mean	Range	Mean
Malaria	(MP) 65-95 (KE)	79	(KE) 0.5-30 (MP)	14
Leprosy	(MH) 76-89 (TN)	83	(TN) 4-10 (KE)	6
Tuberculosis	(MH) 25-94 (MP)	55	(MP) 0.7-73 (KE)	40
Urban Hospitals	(GJ) 63-77 (AP)	66	(AP) 19-31 (TN)	24
Teaching Hospitals	(TN) 48-66 (AP)	58	(AP) 13-50 (TN)	25
Rural Hospitals and Dispensaries	(KE) 64-88 (PJ)	73	(GJ) 2-34 (KE)	15
Primary Health Centres	(AP) 74-89 (KE)	83	(WB) 6-17 (AP)	10

The abbreviations in parentheses are names of states with the minimum and maximum range values.

Source: Same as Table 5.

of the major health programs, that is salaries and materials and supplies.

Disaggregating the expenditures on selected major health programmes into salaries and materials and supplies we find that in general salaries take away an exceptionally large proportion of the expenditures in all the activities under the public health sector. The ranges (1992-93 budget) and means (three-year average) of the proportionate share for both categories of expenditures in the eight states for selected programmes is given in Table 8. It is evident that disease control programmes and rural health programmes have very high salary expenditures which leaves a very small sum for other supportive expenditures without which the health care programmes are rendered ineffective. The urban hospitals and teaching hospitals are relatively better looked after and this is reflected in their overutilisation which creates its own problems. In contrast the gross underfunding and the poor allocative efficiency of rural health programmes leads to very low levels of utilisation of these facilities, thus causing a lot of wastage of the assets created and personnel employed.

In conclusion one can add that rural health care programmes are grossly underfunded, and what little resources are deployed are inappropriately utilised leading to the poor efficiency and use of the rural health infrastructure. At the other end, though urban areas are better endowed and allocations have relatively a much better mix, the urban health care system suffers from an unnecessary pressure, including an influx of patients from less endowed rural areas leading to overcrowding, which also makes it inefficient. If even the existing resources available are better distributed both geographically and in terms of input composition of expenditure (salaries, materials & supplies, maintenance, equipment, etc) the present system too can become more effective and responsive to the health care needs of the people. But this should not be taken to mean that the public health sector does not need more resources. On the one hand allocative efficiencies need to be drastically improved but perhaps more importantly the overall resource allocations to the public health sector, especially to rural areas, needs a substantial enhancement if people have to be served better and more effectively.

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Structural Adjustment and Health Policy in Africa

Rene Loewenson

World Bank-International Monetary Fund structural adjustment programmes (SAPs) have been introduced in over 40 countries of Africa. This article outlines the economic policy measures and the experience of the countries that have introduced them, in terms of nutrition, health status and health services. The evidence indicates that SAPs have been associated with increasing food insecurity and under-nutrition, rising ill-health and decreasing access to health care in the two-thirds or more of the population of African countries that already lives below poverty level. SAPs have also affected health policy, with loss of a proactive health policy framework and a widening gap between the affected communities and policy makers.

Adjustment programmes are rending the fabric of African society. Of the estimated half a million child deaths in 1988 which can be related to the reversal or slowing down of development, approximately two-thirds were in Africa.

UNICEF 1989.

THE economic structural adjustment programme, ESCAP or SAP has many names in Africa. To banking and financial interests, these words spell economic growth and development. For the poor majority of Africa, they spell hardship and struggle.

Africa is a continent that is often portrayed as being at best irrelevant to the international economy. It has been commented that if Africa north of Johannesburg sank below the seas, the international markets would not notice. It is true that Africa provides a small fraction of the global gross national product. But Africa is also a continent of social ideas, aspirations, and struggle. It is a continent where ordinary peasants and workers have in this century waged successful liberation struggles to shake off centuries of colonialism and racism and where a second wave of democratic action is being waged against one-party or one-man governments. Africa is a crucible of change, fertile ground to nurture the best that human development has to offer, but often victim to the worst that it imposes.

This is particularly important for people working in the health sector. Health is a product of material well-being, but it is also a consequence of the social organisation to obtain or produce those material resources. There are many examples of how popular organisation and community mobilisation have contributed to health, even against a background of scarce material resources. They exist in the primary health care gains in Mozambique in the early years of its independence; in the substantial

reductions in infant mortality in many African countries in the early post-independence period; or in a rate of expansion of primary education in Zimbabwe in the 1980s that is unequalled in the world[1]. These achievements were a product of the combined impact of resource allocation and social mobilization. How have SAPs affected health policy and the social development central to improvements in health? The answer cannot be found in policy documents, where harsh reality is often disguised in acceptable policy terms. While producing a wave of retrenchment, price increases, social decline, and hardship, the Zimbabwean SAP states its commitment to "improve living conditions, especially for the poorest groups" [2]. It is more relevant to examine actual changes in health and social organisation after the introduction of structural adjustment, and from this derive the de facto impact on health policy.

The World Bank and the IMF are in breach of the Charter of the UN in that they have not promoted higher standards of living, full employment and conditions of economic and social progress and development, nor have they promoted a universal respect for the observance of human rights and fundamental freedom for all.

-Verdict of the Permanent People's Tribunal on the Policies of the IMF, September 1988 [3].

Since 1980, money has been flowing internationally from South to North. In 1979, there was a net flow of U.S. \$40 billion from North to South. Today about \$60 billion are transferred from poor to rich countries, excluding the repatriation of private profits. From the 28 least developed countries in the world, their foreign debt equals 91 percent of their gross domestic product. The African debt has become totally unpayable; in sub-Saharan Africa it represents over one-third of export earnings[4]. With rising political and economic tensions, developing countries have been encouraged to adjust their economies to increase their external funds for debt repayments, mainly through cuts in domestic expenditure and an increase in exports. This has led to a tide of International Monetary Fund/World Bank SAPs across the continent. In the first half of the 1980s, three-quarters of African countries had implemented IMF/World Bank SAPs. In many African countries, so called "homegrown" SAPs have included classical World Bank policy measures that have been allied in an almost uniform form in over 40 African countries, as well as in countries in Asia and Central and South America. Under SAPs, the economy is adjusted structurally to manage the balance of payments, reduce the fiscal deficit, increase economic 'efficiency', and encourage private sector investment and export-oriented production.

The major measures include:

Currency devaluations and control of the money supply;
Reduction of public borrowing and government expenditure, particularly in the social sectors;

Trade liberalisation, reduction of tariff rates, and other incentives for foreign investment;
Abolition of price controls;
Privatisation of public enterprises or reduction of subsidies to parastatals;
Withdrawal of subsidies on food and other commodities; and
Retrenchment of workers; wage freezes, and deregulation of laws protecting job security.

In 1989, based on the experience of countries already implementing an SAP, the UN Economic Commission for Africa outlined the potential negative economic and social impact of these policy measures, as shown in Table 1[5]. The World Bank (and many of the implementing govern-

TABLE 1: STRUCTURAL ADJUSTMENT POLICY MEASURES AND THEIR IMPACT

Policy Instrument	Effect
Budget reductions, especially on social services and essential goods.	Undermines human conditions, especially the environment and future potential for development; necessities massive sector retrenchment.
Indiscriminate promotion of traditional exports; price only to tradeables.	Undermines food self-sufficiency; can lead to environmental degradation; oversupply can reduce prices.
Across the board credit squeeze.	Overall contraction of the economy; decline in capacity utilisation; closure of enterprises; accentuated shortage of critical goods and services.
Currency devaluation.	Socially unsupportable increases in prices of goods and services; raises domestic cost of imported inputs; triggers inflation; diverts foreign exchange to speculative activities and enhances capital flight; worsens income distribution patterns.
Unsustainable high real interest rates.	Shifts the economy toward speculative and trading activities and fuels inflation.
Total import liberalisation.	Leads to greater and more entrenched external dependence; intensifies foreign exchange constraints; jeopardises national priorities such as food self sufficiency; erodes capacity of infant industries.
Dependence on market forces for getting prices right in structurally distorted and imperfect markets.	Worsens inflation through sharp rises in production costs; distorts production and consumption patterns and may derail transformation.
Doctrinaire privatisation.	Undermines growth and transformation; jeopardises social welfare and human conditions.

Source: References [5].

ments) warn of the short-term harsh impact of SAPs: retrenchment, cutbacks in public expenditure and social services, charging fees for social services, rising prices, and shrinking real incomes. The palliative is that at some undefined point in time the economy will "pick up" and the growth generated will not only pay back the debt but will also trickle down and improve the lot of the poor.

By the mid 1980s, increasing evidence began to emerge of these negative effects of SAPs on the conditions of the poor majority. Falling real incomes, higher costs of living, and reduced government expenditures on social services produced a severe deterioration in the living standards of the majority. In sub-Saharan Africa, per capita incomes fell by over 25 per cent in the 1980s, and unemployment increased in most countries [6, 7]. In UNICEF's 12-country study of the impact of SAPs, unemployment increased, to over 25 per cent in Jamaica, 16 per cent in Chile, and from 5 to 11 per cent in Peru. Declining formal sector employment was reported to push people into the informal sector [8]. The special session of the UN General Assembly on International Economic Co-operation on April 23-28, 1990, concluded that SAPs had in many instances exacerbated social inequality without restoring growth and development and with threats to political stability. The brunt of the programmes has been acknowledged to fall on the poorest, who have been repeatedly urged to "tighten their belts". In many African countries, this constitutes that two-thirds of the population already impoverished by economic inequities and recession, whose response is often, "we have no belts left to tighten!"

IMPACT ON HEALTH

"Belt tightening" has been a euphemism for a fundamental attack on the basic elements of social well-being. African countries undergoing an SAP have been reported to have experienced rising rates of ill-health and mortality in both the urban and rural poor. Diseases that had reportedly been eliminated, such as yaws and yellow fever in Ghana, reappeared during the SAP period [4,8,9]. Not only have SAP policies ignored this increase in ill-health, but they do not include the profound economic and social impact of the AIDS epidemic at the household, community, or national level.

Infant and child health, often taken as a sensitive indicator of community well-being, has shown marked declines. The infant mortality rate, which had begun to decline in many African countries, rose by 4 to 54 per cent in the SAP periods of the seven African countries shown in Table 2[6]. Increases in under-five-year mortality rates of 3.1 to 90.9 per cent were observed in these countries in the same period[6]. In 1988, the UN was informed during the review of its Program of Action for African Economic

Recovery that one million African children had died in the 'debt war' (quoted in 7).

Nutrition and food security are major contributors to the health of the population. Although one of the major policy tools of an SAP is to raise producer prices of export crops to stimulate production, there is evidence that poor rural households have not benefitted from these measures. Producer price increases have been offset by increases in costs of inputs to production. In Zambia, for example, maize producer price increases of 142 percent dropped to a real increase of only 6 per cent after taking input cost increases into account[10]. There are no incentives for food crop production, which occupies the majority of the poorest peasants, particularly women farmers, and provides for a substantial part of rural food security[11-13]. In addition, incentives are often given through credit facilities, which tend not to be used by the poorest farmers.

Real wage reductions, rising prices, especially for food, and the cut-back in public subsidies have stressed the ability of urban incomes to meet minimum subsistence needs. In Mozambique, for example, removal of food subsidies caused a real increase in food prices of 400 to 600 per cent. In January 1989, a kilogram of tomatoes or onions cost 5 per cent of an office worker's wage[14]. Any real increase in food prices take a heavy toll on low-income groups, some of whom spend up to 80 percent of their income on food. The mid-1980 average wage in Ghana was sufficient to buy only 30 per cent of food needs[8]. Households try to cope with their declining purchasing power by shifting food consumption to poorer quality, high-bulk, and low-energy food, leading to chronic nutritional deprivation, particularly in young children.

In some countries governments introduced food ration systems as part of a "safety net" for the poorest. In Zambia a coupon system was introduced for maize meal, initially for urban households, and then for those earning below K 20,500 (kwacha) a year. Many problems were experienced with the coupon system. It was restricted to certain outlets,

TABLE 2: INFANT MORTALITY RATES IN COUNTRIES WITH IMF/WORLD BANK PROGRAMMES

	Infant Mortality Rate			Percent Change, 1980-85
	1965	1980	1985	
Ethiopia	165	146	168	+15.1
Mali	200	154	174	+26.5
Madagascar	na	71	109	+53.5
Uganda	121	97	108	+11.3
Tanzania	138	103	110	+ 6.8
Somalia	165	146	152	+ 4.1
Kenya	112	87	91	+ 4.6

limiting the access of low-income households, and it left out rural consumers and those in the informal sector, among the poorest Zambian households[15]. A more direct subsidy on roller meal in Zambia, thought to be of more direct benefit to low-income groups, resulted in millers shifting production to more high-cost cereals and meant that roller meal became unavailable[16].

A 10-country study published by UNICEF on the effects of adjustment on health concluded that the nutritional status of children had declined in all but two of the ten countries[8]. Data from Zambia indicate that at the height of the adjustment period between 1980 and 1984, hospital deaths due to malnutrition increased from 2 to 6 per cent in the 0 to 11 month age group and from 38 to 62 per cent in the 1 to 4 year age group[17]. In a 1987 survey in the University Teaching Hospital in Lusaka, almost 60 per cent of the child admissions were from the low-income areas of Lusaka and 37 per cent were from malnutrition[15].

Despite increased ill-health, health sector expenditure has been cut under SAPs. For example, per capita expenditure on health was reported to have fallen by 40 per cent in Jamaica, 23 per cent in Ghana and 8 per cent in Brazil[8]. Cuts in public expenditure have been associated with the introduction of 'cost recovery' – a World Bank euphemism for fee charging. In Ghana for example, fee charging was introduced for ward admissions, first visits to specialist clinics, casualty and polyclinic services, drugs and tests. Fees initially introduced at low levels immediately rose rapidly, with increases of 800 to 1000 per cent in 1985 alone[18].

Fee charging has been reported to improve the quality of services and provision of drugs, but it has also decreased accessibility, particularly in low-income groups. In Mozambique, for example, fee charging was reported to depress outpatient visits in Maputo by 24 per cent between 1986 and 1987, while contributing to a minimal 1.6 per cent of the state health budget[14]. While many countries (including Mozambique and Ghana) have exemptions for the poorest, in practice poor households have found these difficult to claim.

Health workers have also been affected. Cutbacks in public expenditure have in many countries squeezed expenditures on salaries, while price increases have reduced real earnings of health workers, so that there has been a loss of personnel, particularly from the public health sector. In Ghana, for example, of 1,700 doctors working in the public health sector in 1982, only 665 were in post in 1987, most having left for Nigeria and Saudi Arabia[18]. Health workers in the public sector are increasingly pressured to perform private work for extra income, and use public resources to support these practices[14]. Many skilled and experienced professionals, in health and other sectors, move to donor agency employment, where their incomes, conditions of work, and facilities are much

better. Donors in their turn provide selective support to specific programs under their own management, many without addressing broader infrastructural support of the public sector[19]. With declining public sector infrastructures and worsening conditions of service, demoralized health workers have resorted to strike action, such as in the health worker's strikes in Mozambique in 1990 and Zambia in 1991.

The negative impact of SAPs on health and health care described above is an indication of a profound, if unstated, change in health policy. The detailed measures and effects vary, but there are consistent broad features of this change: A proactive health policy is replaced by health sector measures to accommodate the SAP. There is a widening gap between affected communities and policy makers, leading to alienation and social tension, with the social response ranging from individual coping mechanisms to social resistance; and health as a right (with its inherent principles of equity) is changed to health as a commodity (for the rich) or a charity (for the poor).

Nowhere is there articulation of the new 'Health policy under SAPs', not surprisingly as it generally implies a reversal of principles of equity in, participation in, and access to health care that were fundamental to health care progress in Africa. Ministries of health are not being asked to shape policies for the health sector, but rather to define ways of making the health sector accommodate to the economic policy measures in the SAP. One effect of an SAP is thus perhaps the loss of a proactive health policy. The policy debate in the health sector shifts markedly from demand-oriented questions on what the population needs and what would be feasible and effective to meet those needs, toward supply-oriented questions of what is affordable and cost effective.

INDIVIDUAL VERSUS SOCIAL ROLES IN HEALTH

Health is both a product of and a contributor to social development. A central aspect of health policy in post-independent Africa has been the importance of social and community mobilisation. The introduction of SAPs has affected this social element in two major ways.

First, it has placed a much greater emphasis on the individual household's ability to buy services or to find ways of dealing with economic problems. The rising cost of living and problems in obtaining employment and basic needs under an SAP preoccupy households, often to the exclusion of other social activities. Economic poverty creates psychosocial stress even within households, between men and women, as well as between different sections of family or community[20]. Individualism is fostered in the market place, where competitiveness is more appropriate than cooperation. Workers and peasants are easily divided by selective benefits to the better off, and by the fear of economic insecurity. Social mobilisation is

more difficult to achieve under conditions where every service has its price.

These individual responses are summarised in Ghana as "suffer-manage; beat-the-system; escape-migrate and return-to-the-farm"[9]. Suffer-manage refers to the endurance strategy of cutting back, while beating-the-system refers to finding every possible way of cheating the state or expropriating others. The escape-migration solution is to leave the country in search of brighter prospects, while the back-to-the-farm group packs up and returns to peasant life, in the hope of avoiding the price war of urban areas.

The retreat to individualism is reinforced by the declining role and credibility of the state. In post-independent Africa, the state was the major instrument for social transformation through public sector driven reform. The state was the arena for idealism and policy change. Unfortunately, the state, in many African countries, also monopolised this role, to the exclusion of the development of civic society. As SAPs "disrobe" the body of the state, cut off its "excess fat", and reduce it to a shrivelled and mean miser, ordinary people are left in bewilderment without effective social organization to protect their interests.

Second, SAPs have distanced the policy makers from the community. Planning has become the prerogative of the very few who sit at the same table and cooperate with the international finance institutions. Even senior national civil servants and professionals with local skills an experience are reduced to 'managers' of policies developed by international consultants, whose exposure to local conditions is a one or two week 'mission'. The population is the last to know the programme. The unpopular measures in an SAP produce a combination of secrecy and lack of consultation that make implementing governments appear authoritarian to ordinary people. The World Bank euphemistically calls for 'strong government' to implement these top-down programs[16], while local scientists see it differently. As Matlosa writes about the introduction of the SAP in Lesotho, "The reliance of the smooth operation of SAP on authoritarianism may be the reason why the IMF loan and its conditionality was never subjected to national debate in Lesotho"[21].

Denied the opportunity to influence policy, individual coping is matched with social resistance to the program. SAPs have led to unrest in almost all countries where they have been implemented. As hardships have increased, people have taken action with varying degrees of organisation or spontaneity. In Nigeria in 1988, petrol price increases and transport fare increases were met with a spontaneous uprising against the SAP, followed by a second demonstration in July 1989. In Cote d'Ivoire, students and workers in 1990 demanded an end to the SAP and for the president to step down. Similar demonstrations took place in Togo, Senegal and Sierra Leone. In Zambia in December 1986 and early 1987, demonstrations

broke out over the Copper Belt when maize meal price increases were announced. Ten workers were killed in these demonstrations. In July 1990, food riots in Zambia again broke out, leading to an abortive coup and about 26 people killed. Lesotho construction workers went on strike to demand reinstatement of 400 retrenched workers and wage increases, the state reacting with police force, shooting two workers and detaining others [21]. When the labour movement in Zimbabwe announced a day of protest marches against the ESAP and its consequent changes in labour laws, the state mounted one of the biggest security build-ups the country had witnessed since 1980. This relationship between resistance and state control further distances the state from the people.

The combined effect of individual coping, social resistance, and the centralisation of planning is one of alienation from and distrust of the state and mounting social tension. Where civic society is active, this can motivate much more community-based discussion, which may generate new alternatives for health policy. In most African countries, however, civic organisation is weak, and people are pushed into increasingly individual methods of coping, or not coping, as the case may be.

With the overbearing social costs of adjustment leading to social resistance and tension, the World Bank began to include as an adjunct to its SAP an additional component called the 'Social Dimensions of Adjustment (SDA)' or the 'Social Development Fund'. This was an attempt to implement "adjustment with a human face". The SDA funds aim to both protect "poor and vulnerable population groups" from "transitional hardships," and "alleviate transitional social hardships" seen to be temporary in nature[22]. Included in SDA measures are (a) employment and training programmes for retrenched workers and those in the informal sector, together with small-scale venture funds for small businesses and for labour-intensive, low-wage public works projects in rural and urban areas, and (b) targeted programmes for disadvantaged groups, including the urban and rural poor usually providing funds for health and education fees.

The PAMSCAD programme implemented in Ghana in late 1987 invested \$90 million several years after the introduction of the SAP to deal with its social casualties. The programme included redeployment of the unemployed, improved health care, nutrition, literacy, and water supplies. In Mozambique, attempts were made to follow the IMF package with a series of compensatory measures to deal with the negative social impact two years later. These approaches were based on a principle of 'targetting' affected groups, at a time when two-thirds of Mozambicans lived in poverty[14].

Such programmes aimed at mitigating the effects of adjustment are often introduced some time after the introduction of an SAP. They are criticized as having a marginal effect at best, and at worst obscuring the fundamental causes of poverty and ill-health.

They regard vulnerable groups as targetable at a time when 50 per cent or more of the population is living in poverty. They direct resources to the poor as an act of charity and not a basic right. Without challenging the patterns of distribution of wealth, these programmes are criticised as being unstable in the long term, and for increasing dependence on outside financing[23]. SDA programmes reinforce a two-tier system: one tier of service provision according to ability to pay and a second tier according to need, funded from the social fund. The two tiers are segregated, obstructing equity or redistribution of social resources. Health is thus transformed from a social right to a marketed commodity for one section of the population or a targettable charity for another.

HEALTH: COST OR BENEFIT?

It is evident that there is a deep contradiction between the SAP as an economic policy and those policies aimed at building the health of the population. Health workers who point to the social upheaval and human misery around them are faced by smug economists who say, "We told you this would happen, but it's the price you pay for economic growth". For those in the health sector, this raises two challenges: to make human resource development and thus health a more central element of economic planning and policies, and to contribute toward social organisation that will ensure the advocacy and implementation of those policies.

While paying lip service to the importance of health, the SAP has raised a challenge to the social welfare model of health. It has become increasingly clear that it is not enough in these cynical times to have a health policy that strives for social justice. Only if the health of the people is viewed as a necessary input to economic growth and social stability will it be protected and developed. Health becomes an important element of economic growth when human resource development is central to such growth.

One such economic policy, for example is the high skills strategy toward economic growth. Competitive advantage in an economy can be derived from access to natural resources, marketing strengths, technological sophistication, labor skills, the costs of capital inputs, and wage and tax rates. There are usually three main strategies for competitive advantage; resource-based strategies, low-wage strategies, and technological and skill-intensive strategies. As resources have themselves become less important in recent decades than what is *done* with them, it is to the latter two options that we should pay attention.

Low-income/low wage strategies involve low-skill production methods; use informal sector, part-time, and casual labour; and involve weak environmental and health standards, poor social investment, and limited infrastructures. Low wages are maintained by unemployment

and poor social development of labor, which contributes to the erosion of workers' bargaining power. Low wages also lead to a widening inequality in the distribution of incomes and wealth. From the measures described earlier, it is evident that the SAP is a new form of the old low wage/cheap labor that has marked African economies since colonialism.

The second approach to economic growth involves a high skills strategy, which shifts the emphasis to the source of wealth. The high skills strategy emphasises increasing the value added, rather than diminishing labour's real share of the existing value added. In contrast to a low-wage approach, which is based on skirmishes over a static pie, a high skills strategy is based on sustained increases in the pie.

Sustained increases in wealth arise from increases in productivity and in the value added to goods, that is, the difference between the cost of raw materials and of products. Value added comes primarily from technological innovation. However, sustainable innovation can only be based on the growth of skills in the workforce. In Japan, for example, the high skills option was successfully used to penetrate markets dominated by US companies. In Germany and Sweden, public policy has made it impossible to pursue low-wage options and has forced high skills strategies and technological innovation. In Africa, where there are limited resources to import new technology, the need for a sustainable strategy for indigenous technological innovation is even more extreme.

Because the high skills strategy emphasises human resource development as a means to technological innovation and increasing value added, it is consistent with higher wage payments, better working conditions, better social sector provisions, and a reducing inequality in incomes. While this has led to higher quality of life and health indicators, it has also led to economic and productivity growth[24]. In such an economy, health and health care become contributors to development, and not costs. This important choice of a human-centered path to growth and social development was recognised in the Lagos Plan of Action signed by African Heads of State in 1980, which states that, "since Africa's greatest asset is its human resources, full mobilisation and effective utilisation of the labour force for national development and social progress should be a major instrument of development"[25]. These resolutions were further developed in the 1989 UN Economic Commission for Africa's Alternative Framework to SAPs for Socio-economic Recovery and Transformation: (AAF-SAP)[5].

These documents contain noble intentions, but successively stated at the beginning and end of a decade that saw three-quarters of the same heads of state implementing SAPs, with their trail of human waste and misery. This failure of African leaders to implement their own stated policies makes it evident that human-centred policies will not or cannot be implemented without an active and democratic civic society.

This raises the second issue for health workers. It is evident that civic society is beginning to emerge in Africa, in an environment complicated by the poverty and social disruption partially described in this article. Health workers are one section of that civic society. Whether within their own health-related organisations or in support of other representative organisations – including women's groups, resident associations, trade unions, peasant and other producer groups, professional and human rights groups – the extent to which those in the health sector contribute toward, nurture, and advance civic, community organisation may be one of their most important contributions to health.

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DOCUMENT

Charter of Demands on Family Planning Programme

About 40 women activists and women leaders from grassroots organisation from 10 organisations representing almost all the districts of Tamil Nadu, participated in a two-day meeting hosted by Rural Women's Social Education Centre (RUWSEC) Chengalpattu. Participants of the meeting spent a day working in groups to evolve proposals for changes in the family planning programme. The outcome of these discussions are presented here.

- 1 'No' to incentives at all levels; and a call to invest, instead, on comprehensive reproductive health care of sound quality, for both women and men. Treatment for infertility and contraceptive services to be part of comprehensive reproductive health care.
- 2 Access to information on a wide range of contraceptive methods including natural methods; and the option to choose any of these, (or none at all).
- 3 Access to safe and affordable abortion services, without attaching conditions such as sterilisation or adoption of a method of contraception.
- 4 'No' to demographic targets being the indicators for evaluating programme performance.
- 5 'No' to any form of overt or covert coercion, including disincentives to non-acceptors, and disincentives to service-providers.
- 6 Mechanisms for monitoring and redressal in case of negligence or abuse to become an essential part of the programme at all levels.

The call to invest on comprehensive reproductive health care was further elaborated, into the kind of changes this would require overall, and specifically at the sub-centre/PHC levels.

- (1) Health personnel at all levels should be sensitised to women's health needs. Taking women's concerns and needs seriously should become a norm, not the exception.
- (2) All the non-functioning PHCs and sub-centres should be made functional. Adequate resources should be invested to make this possible.
- (3) Sex education and education on contraceptive methods and devices should become a top priority for sub-centres and PHCs. Posters, pamphlets and other educational material should be prepared, which give detailed and objective information. These could be displayed/distributed

through out, patient clinics in PHCs, MCH clinics and the like; introduced as part of adult and non-formal education classes and in high schools, and so on.

(4) Inter-sectoral coordination for promotion of health, should be translated from slogans into practice. There should be a district level committee with representatives from various departments, as well as representatives from local organisations, to ensure that communities have access to basic needs and amenities.

(5) Sub-centres, instead of being only MCH centres, should provide general preventive and curative health care to all members of the community. It should have both male and female health personnel, and regular out-patient clinics.

(6) The sub-centre would be the focal point from which health education and extension activities are initiated. Among its activities would be sex education for adolescents (both boys and girls, conducted by the male and female staff respectively if necessary); premarital counselling of couples, and broad-based information dissemination on all methods of contraception, including natural methods.

(7) The PHC would be better equipped, and provide a comprehensive range of services. It would minimally have adequate water supply and sanitation facilities, a clinical laboratory, and a vehicle for transporting serious cases to the referral hospital.

(8) A regular 'reproductive health care' clinic catering to both men and women would be an essential component of every PHC. This clinic would be open on all days and would provide:

(a) Counselling for contraception to both men and women; and would cater to unmarried and adolescent groups as well, and not only to married women. Information would be provided on all modern methods of contraception, both temporary and permanent, and also on natural methods, without demanding that any of these be adopted.

(b) Comprehensive reproductive health care including treatment of sexually transmitted diseases, treatment of infertility and screening of women 'at risk' for breast cancer and cervical cancer.

(c) Antenatal, natal and postnatal care, including surgical and other facilities to deal with complicated deliveries and health problems that may ensue as a consequence of complications in delivery.

(d) Medical termination of pregnancy, and sterilisations for birth control, in addition to IUD insertion, and dispensing other methods of contraception. There should be no more sterilisation 'camps' performing hundreds of sterilisation operations with scant regard to quality, and no provision for follow-up. Instead, sterilisations should be available on a regular basis at the PHC.

(e) All necessary check-ups before a method is adopted, to rule out any contraindications.

(f) Follow-up care for anyone who is practising contraception, irrespective of where the original services were received from. Fortnightly domiciliary visits at least for the first six weeks should be part of the follow-up package for sterilisation and IUD insertions performed in the PHC.

(g) Medical help and the option of discontinuing the method, together with choice of an alternative method, for those approaching the clinic with problems following adoption of a contraceptive method.

There was a lively debate on alternative indicators to assess the performance of the FP programme. It was agreed that since family planning is seen mainly as a means to the larger goal of improving the health of women and children, indicators of women's and children's well-being would be the most appropriate assessment indicators. Some of the FP assessment indicators suggested for localised collection and analysis of data are:

- improvement in infant and child survival rates
- decrease in maternal mortality
- decrease in maternal morbidity
- improvement in the rate of safe abortions, i.e. decrease in the proportion of deaths/serious health problems from unsafe abortions
- decrease in the proportion of women in reproductive age groups suffering from anaemia
- outreach of information on contraceptives, and availability to women of a method of their choice.

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Note to Contributors

We invite contributions to the *RJH*. Original research articles, perspectives, field experiences, critiques of policies and programmes in health care, medicine and allied areas are welcome. Please send manuscripts, preferably typed in double space. If the material is on a word processor, please send us a hard copy along with the matter on a diskette preferably in WS4. Address all communications to the editor at the address on the inside front cover.'

Injured Psyches Survivors of Bhopal Disaster

A decade after the Bhopal disaster, survivors are struggling to make peace with themselves and sense out of the confusion around them.

IT is a decade since over 40 tonnes of lethal gases leaked out from Union Carbide Corporation's Bhopal-based pesticides factory and affected over 500,000 people. Most of these gases which included methylisocyanate, hydrogen cyanide, mono methylamine have caused permanent damage to the respiratory, gastrointestinal, reproductive, immunological, nervous, musculo-skeletal and other systems of the body and over one-fifth of the affected population continue to suffer acutely from exposure-related illnesses. Research conducted by the Indian Council of Medical Research has indicated chromosomal aberrations among the gas exposed and physical and mental retardation among the children born in the subsequent years to exposed parents. The damage to the immune system and consequent proneness to secondary infections has given rise to an alarming rise in the incidence of pulmonary tuberculosis and other infectious diseases. As can well be imagined there is a high incidence of mental health problems among survivors. With the collection of medical data almost abandoned it is not possible to estimate the numbers of survivors who continue to suffer from anxiety, depression, insomnia, emotional disturbances and other psychiatric disorders. Impressionistic accounts, however, suggest that the numbers have gone up over the years and not come down. Yet no efforts have been made by the government to provide professional support to the mentally ill; nor are doctors, government or private, familiar with ICMR's 'Manual on Mental Health Care' — a unique work because of its sensitive and sympathetic approach to the problems. Further, in a sharp departure from legal principles, accepted everywhere damage to mental health of the exposed people has not been regarded as compensable injury. While these issues of concern require to be addressed, the purpose here is to outline the medical, social, economic and political circumstances that, over the years, have given rise to a situation which has been detrimental to the mental health of the Bhopal survivors. An overwhelming degree of uncertainty arising out of a near complete lack of information leaves many questions unanswered for the survivors.

What has happened to my body?

It would not be an exaggeration to say that ever after all these years not a single survivor knows what damages have been caused by exposure to the gases. What is it that makes them breathless, fatigued and too weak to carry on with usual chores? UCC's refusal to divulge information about the medical consequences of the leaked gases is major reason for these uncertainties. However, researchers of ICMR and other agencies too have not exactly covered themselves with glory in this respect. Volumes of ICMR publications produced after studies that have been done on blood, urine, semen, tissues and other samples from these victims continue to be 'classified' for mysterious reasons. No attempt has yet been made to disseminate any information that has been generated. Government doctors treating survivors are wont to ascribe most of the survivors' problems to their imagination and efforts to explain the nature of the damages wrought on their bodies are absent. To be fair to them, often doctors are as much in the dark regarding the patient's illnesses as the patient herself, but such shared ignorance provides little comfort. Many survivors suffering from these problems are misdiagnosed as patients of tuberculosis and sent to the TB hospital, only to be brought back after several months and advised to discontinue anti-tubercular treatment. For some more unfortunate, the cycle is repeated. The trauma suffered by such patients have been glaringly demonstrated in many instances where gas-exposed young male patients in the TB hospital have doused themselves with kerosene and set themselves on fire in the very wards where they were admitted. Unfortunately non-government voluntary efforts towards dissemination of medical information too have been inconsistent and inadequate.

What will my future health condition be?

Despite the passage of nine years and expenditure of crores of rupees (from the public exchequer) medical treatment of the gas-affected people continues to be the same as it was on the day after the disaster, namely prescription of symptomatic-supportive drugs. It is common to find ailing survivors indicating the amount of capsules and tablets consumed by them not in numbers but kilograms and it is extremely rare to find cases where such consumption has provided anything but short-lived relief. That substantial portion (nearly 37 per cent according to a 1990 study) of these drugs are unnecessary and/or hazardous is yet another serious issue. It is indeed unfortunate that researches conducted by the ICMR and other agencies have contributed very little towards the treatment of the survivors. Possibly the search for a cure has been abandoned even before it was begun. One is led to suspect that had the victims belonged to an affluent and powerful class the situation with regard to medical treatment would not have been so bereft of hope in Bhopal today. The inefficacy of treatment, deterioration of health condition and manifestation of symp-

toms by survivors who had earlier been asymptomatic as well as the likelihood of subsequent complications — all these present an uncertain future for a large number of survivors.

Is the Carbide factory still a threat?

It is indeed unfortunate that the causal factors behind the world's worst industrial disaster continue to be shrouded in mystery to this day. While Union Carbide has changed its story on what led to the disaster twice so far, scientists employed by the Indian government have made no attempts to adequately publicise the findings of their investigations into this matter. Little is known of the dangerous chemicals that remain inside the factory till today except when they have emitted (thrice so far) and caused nausea, unconsciousness, giddiness, cough, large scale panic and at least one reported death due to shock. In the absence of information regarding the safety (or the lack of it) of the factory, in the minds of the neighbourhood population it stands as an ogre that visits their dreams. Analysis of samples of soil and groundwater in the vicinity of the factory has indicated the presence of seven kinds of chemicals that cause damage to the kidney, liver and the respiratory system. Caused due to routine dumping of toxic wastes in and around the factory, these chemicals continue to pose a serious hazard to the neighbourhood communities. The need for dissemination of scientific and technical information was possibly never better illustrated than during 'Operation Faith' when survivors fled Bhopal as the government announced plans to utilise the chemicals left in the tank.

How will I sustain myself and my family?

Incapacitation as a result of exposure and the abysmal failure of the government in the area of economic rehabilitation has made a large number of survivors dependant on monetary relief provided by the government. Such relief however is not a life time assurance and had actually been discontinued in May last. As estimated 50,000 survivors are unable to continue with the physically strenuous jobs that earned them a living and are likely to face starvation if monetary relief is stopped. The workshops in the special industrial area built with an investment of Rs 6 crore and intended to provide jobs to at least 10,000 survivors are now being sold off to private industrialists (at one-tenth the cost price) who have offered that 10 per cent of jobs would be reserved for survivors. Sewing centres run by the government provided employment to 2,300 gas-affected women but now lie closed, for unexplained reasons. Economically thus an uncertain future awaits the survivors.

When will I receive compensation?

It has been more than 20 months since disbursement of compensation has begun in Bhopal. The number of claims that have been adjudicated in

the period by the claims courts is about 6,000, while the total number of claims is more than a hundred times this. There are, as yet, no indications of any governmental concern over this impermissible delay in compensating the survivors. At the current pace of distribution of compensation and the estimated current deaths attributable to exposure being 10 to 15 every month, a major percentage of the survivors would be dead before compensation reaches them. Ironically the union government had justified its settlement with Union Carbide on the grounds that this would enable survivors to receive compensation early since litigation to establish liability takes many years.

Apart from the delay in disbursement, compensation is being unjustly denied to the majority of the claimants. Official figures indicate that over 70 per cent of the death claims, adjudicated so far, have been rejected. Most of these rejections can be ascribed to the ignorance of the judges of the claims courts regarding the medical consequences of Carbide's gases. Inordinate delay and unjust denials in compensation disbursement have in the minds of the survivors raised uncertainties not only about 'when' but also about 'whether'. Along with these uncertainties there are endless assaults on the psyche of the survivors due to reasons associated with the disaster. Primary among these is the loss of dignity and self-respect suffered by the survivors caused in several ways.

Over 80 per cent of the gas-affected population is composed of people who, prior to the disaster, earned their livelihood through such jobs as daily wage labour, pushing hand carts, carrying loads, doing construction work, rolling beedis, as mechanics, vendors, etc. Debilitation caused due to exposure related illnesses have rendered a large number of affected people incapable of carrying on with such work. While such incapacitation has affected both women and men workers, the effect on the male psyche has been more acute, possibly because supporting the family is associated almost exclusively with the male identity. Instances of gas-affected men going out to work despite their feeble condition and being confined to bed as a result of the induced stress after a few days of such risky endeavour are common. Of course, the lack of the means to satisfy the bare needs of the family is possibly a greater driving force than the need to prove one's maleness, but the failure to continue with one's usual job has both economic and psychiatric repercussions.

Dole may seem a softer option for the survivors but actually survivors have long been demanding provision of jobs and cessation of monetary relief distribution, primarily because of the humiliation in negotiating the bureaucratic procedures and being subject to the harassment of red tape. Through various ways a survivor is often reminded that what she is receiving as dole is by the grace of the government and any objection to her being treated as a beggar would be considered a serious transgression of an assigned role. Unfortunately, the government's neglect in the crucial

area of economic rehabilitation leaves the survivors with hardly any options but to suffer the indignities of dole distribution.

As per the guidelines followed by the claim courts, survivor claimants have to prove their cases beyond reasonable doubt to be able to receive compensation. Given that medical prescriptions issued to the survivors rarely mention history of gas exposure and that in many instances prescriptions have not been issued by doctors, it becomes difficult for claimants to establish their case. This is further compounded due to the deep suspicion with which the judges view each case. As a result, claimants in death cases have to face interrogations that require them to recall and repeat details of the pain, suffering and death of their loved ones under humiliating circumstances. This has led to some survivors to remark that instead of Union Carbide it is the victims of the multinationals who are being treated as culprits. For each case of claim, hearings continue for as long as a year and the psychiatric consequences of such prolonged humiliating and brutalising experience are bound to be serious.

Survivors have also to cope with the gradual development of a macabre scenario that surround them. They see doctors making money as do lawyers government officials, medicine shops money lenders, photocopy 'wallahs', etc while the patients get no better; they find Warren Anderson, the former chairman of the Corporation charged with manslaughter with a non-bailable arrest warrant issued against him and still being able to avoid the courts while their sons get locked up at the police station for protesting against such unlawful behaviour, and so on. They find themselves a part of a black comedy. Such an existence is bound to have an impact on the minds of the survivors.

— Satinath Sarangi

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REVIEWS

Women's Testimonies vs Medical Opinion

Swatiya
Chayanika

The Hysterectomy Hoax by Stanley West with Paula Dranov; Doubleday, New York; 1994; pp 214; price not mentioned.

Hysterectomy: Whose Choice? by Valerie Colyer Farfalla; Random House, Australia, 1990; pp 126; price not mentioned.

IN the past few years there has been an attempt to look at reproduction, reproductive technology, women's body and biology from women's point of view. There have been many individual and collective efforts in this direction all over the world including different parts of urban and rural India. Yet there are issues which have not yet been thought of, probably because of the the urgency other issues demand. And then it is incidents, sudden and important, that begin a number of new debates. For example, the horrible act of mass hysterectomies on mentally handicapped women from a government-run home in Shirur, Maharashtra, has raked up the issue of hysterectomy as a surgery. These hysterectomies performed on very young women (one of whom was just 13 years old) had also raised the question of what could be the effects of removal of the uterus. Was the uterus, removed apparently in these cases to help these women look after their menstrual hygiene, only there for the purpose of reproduction? Did the uterus or other reproductive organs have no role and interaction with the other systems in the body? Did the organ play no active role in the overall health of the woman?

Doctors carrying out the surgery were insistent that hysterectomy was a common enough surgery; and, that the uterus had no other role than creating a nuisance for these 'mentally retarded girls'. While defending this 'common' practice their logic was that one had to weigh the risks of the procedure against its possible benefits for 'these' women. The major benefit, they reckoned was relieving the women of the 'unnecessary filth' of menstruation and helping those looking after these women to cope with the 'dirty' excretion of menstruation. In the understanding of the medical practitioners and those supporting them, these women were not fit to reproduce and so for them the uterus was redundant, it just had 'a nuisance value'. Hence nothing could be more beneficial than removing the uterus at whatever cost.

We, however, fail to look at any of these as benefits for the women. For us the debate rested on issues of responsibility of the state and society

towards these persons with special needs. Such reductionist technological solutions could not in any way resolve the social problems involved, they could just provide convenience to others around these women. This also showed a very restricted view of the human being and the human body, both.

The trouble further was that the medical practitioners kept insisting that there was no surgery-related risk with hysterectomy. They insisted that it was an operation routinely carried out and had hardly any side effects. Knowing the way medical profession and medicine has ignored women's experiences with regard to the use of other medical interventions, especially those related to reproduction, we were wary of these claims. We started looking around for testimonies of women who had undergone the surgery and came across the two revealing books, under review here. One was *The Hysterectomy Hoax* by Stanley West (with Paula Dranov, a noted infertility specialist and chief of reproductive endocrinology at St Vincent's Hospital in New York city and the other, *Hysterectomy: Whose Choice?* by Valerie Colyer Farfalla, a Melbourne journalist writing extensively in the area of women's health.

West's book begins with the following sentences:

You don't need a hysterectomy. It can do you more harm than good. Those are strong words, but the fact is that more than 90 per cent of hysterectomies are unnecessary. Worse, the surgery can have long-lasting physical, emotional and sexual consequences that may undermine your health and well-being.

With these startling statements, the book goes on to explain what is hysterectomy, what its possible after effects are and the available alternatives for the disorders that could lead to surgery otherwise. He states that women have reported effects of the surgery time and again but the medical experts have dismissed these as psychological. In fact, he says that

except when dealing with women's problems, doctors are trained never to attribute symptoms to psychological factors unless we have ruled out all possible physical causes

Our complaints being termed psychological is common experience for us as women. Be it dysmenorrhoea or menopausal problems we had always been told it was in our mind and had nothing to do with the physical state of our body. Yet now reasons are being found also in the changes in the body which even gave rise to the psychological states of depression and mental tension.

In the case of removal of the uterus there is yet another aspect. Modern medicine as practised today ascribes only one function to the uterus, that of conception. So all women who are over the reproducing age or all those who are not considered fit for reproduction like the mentally handicapped are recommended removal of the uterus as a solution to most of their major or minor reproductive health problems. Without hesitation we are also told that there is no 'need' for the uterus in the body so why leave it behind and

be exposed to the possibility of contracting cancer. The fear of cancer and the faith in the doctor's knowledge, opinion and ability is what convinces women to undergo surgery in cases where their opinion is sought. There are many instances, as in the case of the women from Shirur, when even this consent is not considered to be important.

West narrates the incident of a 22-year-old woman who came to his clinic with a complaint of not getting her periods since she was 19 when she underwent a surgery for ovarian cysts. She had also not been feeling well with complaints of hot flashes, joint aches fatigue, headaches, depression, no urge for 'sex' because it hurt, and so on. She had moved residence and so could not go to the hospital where the earlier surgery was performed. On examination West found that she did not have any pelvic organs at all. her uterus, fallopian tubes, ovaries, all were missing. During her previous surgery everything had been removed and she had not even been told about it. Appalled, West tried to find out why this had been done. There was no pathological problem and yet the surgery was performed probably to give some practice in hysterectomy to some student attending the clinic. Besides the horror of this uninformed surgery, West says that the incident provided him personally with new insights.

Although this young woman was unaware of the fact that she was hysterectomised, the complaints that she was reporting were the same as that of other women who had undergone hysterectomies. They were similar to the complaints that were being brushed aside as psychological with no basis. This incident became a starting point for West who then seriously started following up the complaints after hysterectomy. He found a pattern in the complaints and he reports that today there exists evidence that when the ovaries are removed, the absence of estrogen creates a number of problems like increased risk of cardiac diseases, depression, reduction in bone density and reduction in libido. These are in addition to the complications that may arise due to the surgery itself.

What then has come to light in the last few years is that even if the ovaries are not removed, their functioning deteriorates faster than usual until most of the above symptoms are also seen in women whose ovaries have not been removed. The implication of this sudden induced menopause especially on young pre-menopausal women can be quite alarming and distressing. And yet these operations continue to be carried out. According to West between 1965 and 1987, the mean age of women undergoing surgery was done was 42.7 years.

West gives the various reasons for which hysterectomies are normally done and also lists the other viable, effective treatments for these conditions. In the US 30 per cent of the hysterectomies are for benign fibroids many of which would respond to medication or subside on their own. The other major reason accounting for almost 25 per cent of the operations is

endometriosis, a complaint that is becoming more widespread in recent times. Recurrence of endometriosis after the hysterectomy is quite common and so the surgery offers relief in only a few cases. Besides this in 20 per cent of the cases the surgery is done to remove a prolapsed uterii, a complaint which can be treated by alternative means.

The only condition in for which, according to West, hysterectomy is inevitable, is cancer, and only 10 per cent of the operations are done for this reason. He claims that the surgery is obsolete and "does not even necessarily give relief". In the bargain it can result in new problems induced by the surgery. Throughout his book West has tried to provide information needed to 'avoid hysterectomy'. This information provided by a doctor along with the full acknowledgement of the commercial interests of most doctors who insist on hysterectomy, would be vital to all women. And as he rightfully concludes,

Just as basic to full autonomy is control of your body and the right to make decisions about your health and health care on the basis of all available information, free from pressure, scare tactics, and outdated doctor knows best paternalism. It is time we doctors stopped deassembling healthy women. But nothing will change until more women look their doctors in the eye and calmly state their determination to remain intact women.

This collective consciousness and an effort to generate knowledge through our shared experiences finds expression through Valerie Farfalla in *Hysterectomy: Whose Choice?* West is a sensitive doctor no doubt, sensitive to women's pain and relationship with their bodies but the approach and analysis yet remains confined to the medical aspects of hysterectomy. But hysterectomy is not just a medical option. It is an intervention into a bodily function which almost determines women's existence in society. And so, as in the case of other technologies related to reproduction, the issue is not just of medical after effects.

The complex interaction of our body, its biological function and ourselves, the socially defined selves determines also what would be the after-effects of the surgery. Even if the womb is not consciously related to our identity as a woman, it needs a special effort to suddenly get used to the absence of menstruation, a process that has been an indicator of our womanhood. Similarly, even if heavy bleeding due to benign fibroids may not be an indicator of a fatal state as in cancer, the discomfort of that bleeding could be quite detrimental to the person herself.

In such a situation although it is important to know the medical and physiological after effects of the surgery, this is not sufficient information and preparation in case one has to go in for a surgery, even the process of taking the decision is facilitated with knowledge of all these other influences and reasons that affect all our bodies. Valeria Farfalla's book written with support and information from Hysterectomy Support Group in Melbourne, Victorian Endometriosis Association and Cervical Cancer Support Group serves this purpose.

The first part of the book deals with topics similar to those dealt with in *The Hysterectomy Hoax*, that is, information about what is hysterectomy, when is it necessary, what are the alternatives to it, what are its physical complications. Then are sections that are important and different which deal with topics like 'Facing the Personal Consequences' and 'Changes in Life'. These are crucial in dealing with hysterectomy because,

While physical complications can be a problem after hysterectomy, sexual dysfunction, loss of self-esteem and alteration in a woman's perception of her own femininity may have more serious long term consequences.

These experiences are very subjective and quite often conflicting. They are very dependant on the reasons why the surgery is decided upon, the alternatives available to the woman, the support and counselling she is able to get before and after the operation a number of factors all of which have to be taken note of before making such a major intervention into a person's body, into her life.

Judith, in her early forties, said she was devastated after her hysterectomy for cervical cancer because the biopsy report she tracked down after the operation showed no sign of cancer ... She still has ambivalent feelings about sex, reproduction and her psychological life... Sara now unable to have children after her hysterectomy, feels guilty because her husband won't have the joy of parenthood unless they adopt a child... On the other hand, Eva, a German born dentist, has never looked back since her hysterectomy 18 years ago. "It has been a good thing. I have a very good sex life — even better than before."

The book abounds with such experiences of women—experiences reflective of the state of preparedness for each woman. And through these apparently contradictory experiences the book clearly highlights the importance of taking all these factors into account while arriving at a decision and while evaluating the after-effects. It clearly emphasises that we have to accept not only as a physical side effect but also as a state of mind that has to be dealt with when losing organs that are part of one's body; organs, which society almost makes us believe, that are the reasons for our existence. However rational and radical our individual thought process, the impact of these messages from society cannot be just ignored and forgotten. It has to be taken cognition of and dealt with first.

The feeling of grief, a changed outlook towards one's body, especially towards sexuality, a new experience of living — all of these are issues that need to be addressed and efforts made to deal with them positively. This is the contribution that women's health groups have made in all areas of women's health and so too in hysterectomy. Our bodies live in a socio-cultural reality and so the impact of all changes in it has also to be seen in this reality and efforts have to be made to make living a positive experience in an overall sense.

Realising this we feel there are two important aspects of this whole debate. Hysterectomy is a major physiological intervention and the physical implications of removing the uterus have also not been fully explored.

In the light of this it is extremely irresponsible on the part of those proposing hysterectomy for the women with a mental handicap, to say that this is a common surgery and has no side effects. For some women taking these risks without adequate information, and without trying out other methods of dealing with the so-called problems is even more questionable. Such callous indifference on the part of the doctors has to be challenged. At the same time it is important that we investigate what is the implication of hysterectomy for any woman living in this socio-cultural milieu. We also need to find out the extent of its prevalence and the reasons for which it is performed. Only through this process can we evolve our own mechanisms and processes to be able to extend support and strength to each other while facing a situation in which this choice has to be made.

Victims or Perpetrators?

Sandhya Srinivasan

Medicine Betrayed: The Participation of Doctors in Human Rights Abuse, Report of a working party of the British Medical Association; Zed Books in association with BMA, London; 1992.

MEDICAL training does not include a study of the political and social circumstances in which doctors practice. And rarely does it dwell on ethics, on educating doctors of their special responsibilities to their patients, the dangers of misusing their special skills. And the potential for abuse is carried to the extreme when the doctor becomes the accomplice of the state.

Medicine Betrayed is the British Medical Association's second publication on doctors' participation in human rights abuses. The first, published in 1986, established that such involvement was not all that rare. Doctors were known to participate in planning and assisting torture; mistreating prisoners; committing healthy people to psychiatric care, etc. This second report takes a closer look at the circumstances in which torture, and medical involvement in it occurs and at the different ways in which doctors can get involved in torture, both judicial and extra-judicial.

The working group received written and oral testimony and interacted with individuals as well as medical and human rights organisations. After discussing the different aspects of such abuses, it makes recommendations to doctors and medical associations on how to prevent them. The appendices list the stands of various international organisations. The essence of these recommendations is the principle that the doctor's paramount interest is in the patient's welfare, and not the objectives of the state.

The book discusses a number of reasons why doctors get involved in torture — from fear of punishment to the belief that the victim deserves it.

Besides these explanations, which could apply to anyone, the bureaucratisation of the doctor's role often allows him/her to avoid taking a stand.

There are many degrees and types of medical involvement in torture, but the most obvious — and easiest to condemn — is the direct form, when s/he uses skills to inflict pain, mental or physical. But the more insidious role a doctor plays is as the torturer's accomplice — ensuring that torture is carried out without killing the victim. This could be confirming that a victim is fit to undergo further torture, or monitoring the torture to make sure it is not overdone, or treating the victim in between sessions, to enable him to undergo further pain. There is also the doctor who turns a blind eye to evidence of torture, whether by ignoring substandard care to prisoners or giving false or deliberately inconclusive post-mortem reports.

While much torture is done with the tacit, but not open, approval of the government, it is equally important to look at the role doctors play in state-sponsored and socially legitimised violations of human rights. The report looks at three examples in particular — corporal punishment, capital punishment and force-feeding of hunger strikers — where alleviating the distress of a legal act could involve a compromise of medical ethics.

In the first case, doctors are kept on hand, to certify the prisoner fit for punishment, to determine when the prisoner can no longer tolerate the pain, and to treat the injured prisoner. The committee points out that doctors cannot ethically be part of this or any other punitive machinery. Everyone is ready to call amputations and public whippings barbaric, feudal practices. But capital punishment is practised by 'civilised' societies. The examples cited here are primarily from the US, where doctors have participated in executions despite the American Medical Association's opposition.

It might be argued that doctors should be involved to make the death as painless and swift as possible. But even when a doctor does not administer capital punishment, s/he can be made to aid the procedure — by certifying a prisoner fit to undergo capital punishment; treating the prisoner to make him fit for execution; witnessing the execution to confirm that it has succeeded. The BMA condemns all medical participation in all aspects of capital punishment, save the final certification of death, insisting that this take place some time after the execution, and away from the execution site.

On the question of medical treatment of hunger strikers, it is seen as a doctor's duty to revive a critically ill person. When that person chooses to die, should a doctor stand by and watch, revive the hunger striker, even against his/her wishes? The BMA asserts the patient's right to refuse food to the point of death, as a method of protest. Doctors should keep in mind the best interests of the patient, not of the state. And a doctor who feels unable to follow the prisoner's wishes should hand over charge to another doctor.

While noting doctors' extensive involvement in human rights violations, the BMA acknowledges that they are often unwilling accomplices

to torturers, and are even victims themselves. For this reason, international medical associations must extend support to their colleagues who cannot speak up against the government.

The report dwells extensively on documented violations outside western Europe and the US, but records the growing erosion of civil rights in the UK — repressive legislation, maltreatment of IRA prisoners, conditions in prisons and mental health facilities, etc. And in an early chapter it explains the relatively slack follow-up of medical atrocities in the name of research after the second world war. A senate sub-committee explained that "...the value to the US of Japanese biological warfare data is of such importance to national security as to far outweigh the value accruing from war crime prosecution..."

The wealth of information here would have gained focus if other human rights violations referred to here had also been discussed.

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FACTS AND FIGURES

Health and Welfare: Comparative Indices

THIS set of tables compares data on key components of socio-economic development for India and selected developing countries. Among the developing countries India is assigned a low HDI rank of 135 in an array of 173 countries in descending order of the human development index, as defined and computed by the United Nations Development Programme.

Adult literacy rates in India and Sri Lanka and China show the poor progress made in India on this count. As we see in Table 1, in 1992, the adult literacy in India was 49.8 per cent, while that for Sri Lanka was 89.1 per cent and China 80 per cent. For Kerala it was 89.79 per cent. Literacy rates, particularly amongst the women appear to play vital role in reducing the birth rates. Kerala's high female literacy rates occurs with low crude birth rates (18 per cent) as compared with rest of the selected developing countries.

MMR or maternal mortality rate which measures the numbers of deaths among women due to pregnancy-related causes per 100,000 births, was as high as 550 as compared with China and Sri Lanka where it was 130 and 180 respectively. The lower maternal mortality rates in China and Sri Lanka is perhaps linked to large proportion of births attended by health staff which were 94 and 87 respectively; vis a vis India which was only 33 per cent.

India has achieved a life expectancy 59.7 which is much lower than that of other comparable countries. Human development index which is a composite of life expectancy at birth, literacy rate and income (\$ PPP/capita- purchasing power parity per capita) Kerala 0.775 retains its top position on these composite indices followed by Sri Lanka and China.

The remarkable improvement on health status in China, Sri Lanka are attributable in part to government policies that emphasised the financing of cost-effective clinical services. An important factor in India lagging behind other countries in social development has been the level of governmental expenditures for health and education sectors as compared with that in other countries.

There is a significant relationship between the HDI and GNP per capita. For countries such as China, Sri Lanka the HDI Rank is far better than their income rank (i.e. GNP rank). The highest positive difference between HDI and GNP ranks is for China (+49), and Sri Lanka (38) shows that these countries have made more judicious use of their income to improve the capabilities of their people, as compare to India (R) which is fairly significant.

TABLE 1: HUMAN DEVELOPMENT INDEX: KEY COMPONENTS

	India	Sri Lanka	China	Pakistan	Kerala
Life expectancy at birth (92)	59.7	71.2	70.5	58.3	70.76
Adult literacy (per cent) (92)	49.8	89.1	80.0	36.4	89.76
Female literacy (per cent) (92)	35.0	85.0	68.0	22.0	86.13
HDI (92)	0.382	0.665	0.644	0.393	0.775*
Total fertility rate (92)	4.0	2.5	2.4	6.3	2.0
Crude birth rate (92)	30.0	6.0	7.0	11.0	6.1
Maternal mortality rate (88)	550	180	130	600	NA
Births attended by health staff (85)	33	87	94	24	NA
Infant mortality rate (92)	89	24	27	99	17
Contraceptive prevalence rate (per cent)	43	62	83	12	NA
HDI rank (92)	135	90	94	132	—

TABLE 2: HEALTH PROFILE

	India	Sri Lanka	China	Pakistan	Kerala
Population per doctor (90)	2440	7140	730	2940	
Population per nurse (90)	2220	1400	1460	1720	
Nurse/doctor (90)	1.1	5.1	0.5	1.7	
Education as per cent of total government expenditure (91)	1.6	4.8	NA	1.0	
Defence as per cent of total government expenditure (91)	17.0	9.4	NA	27.9	

TABLE 3: INCOME; POVERTY LEVEL OF SELECTED COUNTRIES

	India	Sri Lanka	Pakistan	China
Real GDP/capita (\$PPP)	1150	2650	1970	2946
People in absolute poverty (92)				
Rural	270.0	6.3	24.3	105.0
Urban				
In millions, Total	350.0	7.0	35.0	105.0
Population (91) (In millions)	866.50	17.20	115.80	1149.50
GNP per capita (91) US \$	330	500	400	370
GNP per capita minus HDI rank*	12	38	8	49
GNP/capita rank	147	128	140	143
HDI rank	135	90	132	94

* HDI rank in better than the GNP per capita rank

[All data are from *World Development Report*, 1993 and *Asian Development Report*, 1994.]

Some definitions:

GNP: Total domestic and foreign value added claimed by residents. It comprises GDP plus net factor income from abroad which is the income of residents from abroad.

GDP: Total output of goods and services for final use produced by residents and non-residents, regardless of the allocations to domestic and foreign claims.

PPP per capita: Purchasing power parity per capita is the no of units of a country's currency required to buy the same amount of goods and services in the domestic market as one dollar would in the US.

—Sandeep Khanvilkar

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