

Working Paper No.21

Health in Tamil Nadu : Facts and Issues

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## Table of Contents

	<u>Page</u>
I Introduction	1 - 11
II Health Status of Tamilnadu	12 - 23
III Hospital beds, Doctors and Expenditures	24 - 33
IV Primary Health Care in Tamilnadu	44 - 49
V Some Policy Issues	50 - 61

### Tables

1. Estimated State-wise death rates in India	19
2. Estimates of age-wise mortality in Tamilnadu 1971	20
3. State-wise infant mortality rates 1970	21
4. Mortality according to major causes Tamilnadu and India 1976	22
5. Pattern of institutional morbidity in rural areas Tamilnadu and India 1977	23
6. State-wise ratio of population to beds and doctors 1979	34
7. Distribution of beds in districts in Tamilnadu 1977	35
8. Percentage of beds in rural areas to total beds 1980	36
9. District-wise population-bed ratios in 1977	37
10. Medical Personnel in Tamilnadu 1971	38
11. Allopathic doctors registered by districts in Tamilnadu	39
12. Estimates of doctors (allopathic, ayurvedic, homeopathic and unani) district-wise in Tamilnadu, 1977	40
13. Budgetary expenditures on Medical and Health in Tamilnadu	41



(ii)

	<u>Page</u>
14. State-wise per capita expenditure on Medical and Health	42
15. Functional classification of Medical and Health Expenditures in Tamil- nadu 1981-82	43
16. Performance under principal maternal and child health schemes	49
Annexure (DECLARATION OF ALMA ATA)	62 - 66

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# Health in Tamil Nadu : Facts and Issues\*

## I Introduction

(There is growing interest at the international and national levels in Health as a development issue, with particular reference to government policy in relation to the planning and promotion of health care. A great deal of literature on health planning and policy is available at these levels. It is necessary to progress this debate to a discussion of health policy at the State level in India at least for three reasons: (a) Under the Constitution, the primary responsibility for health care rests with State governments. A State-level analysis of performance, problems and prospects, will help to evaluate how this responsibility is being discharged. (b) Health should be a subject of interest not only to the members of the professional medical and health community but also to legislators, social workers, and, generally, to all responsible citizens. Even an overview of the situation in one's own State will be useful in promoting and sustaining interest in the subject. (c) In Tamilnadu, there are a number of established non-governmental organizations (NGOs) who are actively engaged in primary health care. By virtue of the experience they have gained in the field, they are in a position to contribute valuable inputs to health policy and to the design of health care programmes) A constructive dialogue between government and the interested non-governmental sector might be promoted if facts are reviewed and policy issues that directly arise from such a review are raised.)

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This is the context in which this Working Paper attempts to put together the main facts relating to the health situation in Tamilnadu and the issues of policy and planning to which they logically lead.

2. It will be useful to begin by outlining the general trend of recent discussions of health policy. The welfare, investment and redistributive aspects of social outlays on health are well recognized and do not need much elaboration. For any human being, his life is his most valued possession and health determines the quality and longevity of life. (Health care is a basic right and a basic need for all; and, it is the duty of the State to assure this right and to meet this need.)
3. (The promotion of health is also an economic investment.) Ill-health imposes economic costs by reducing the availability and productivity of labour; and creates demands on public resources in a variety of ways. Better health is a key element in the reduction of fertility, and in promoting the demographic transition to economically sustainable levels of population.
4. The provision of health care has important redistributive aspects as well arising from the close inter-relationship between poverty and morbidity. The poor are more vulnerable to disease because they are malnourished, and are forced to live in environments that are insanitary, congested, lack adequate or safe drinking water and proper sanitation. Malnutrition is a major element in maternal and child morbidity and mortality. Many diseases which are widely prevalent in poor countries such as tuberculosis, gastro-enteritis, malaria, filariasis and leprosy rarely occur in developed countries. While poverty increases vulnerability to disease, it restricts, at the same time, the access of the poor to health facilities. In the first place, poverty and ignorance lead to a suppression or postponement of recourse to curative facilities.<sup>1/</sup> Secondly, health facilities are highly concen-

trated in urban areas. The rural population, and especially the rural poor, have very limited access to the health care system. Thirdly, in availing themselves of such facilities as exist, the poor are at a disadvantage because they are often not in a position to bear attendant costs on foregone earnings, transport, drugs etc.

5. (Given their social context, ill-health as a phenomenon and health care as a set of measures to prevent, detect and cure it both have wide systemic ramifications that extend to such aspects and sectors as incomes, nutrition, education, housing, water supply, sanitation and so on. Comprehensive health care will have to concern itself with all these factors besides facilities for disease detection, cure and rehabilitation.) Inevitably, discussions of health care tend to become quite wide ranging. Some have argued that without a radical transformation of our economic and social structure there can be no real or lasting success in attempts to provide 'health for all'.<sup>2/</sup> Regardless of whether one agrees or disagrees with this thesis, it is possible to argue that our health care system can be made more effective so as to promote and maintain health to more, and to more of the poor, if not to all; and if this could be done, it can at least amount to an attack on the effects of poverty in one major area, and on one of the causes of poverty which is ill-health itself.

6. (In general, there is a close association between a country's per capita income and its health status. Poor countries have relatively high death and infant mortality rates and relatively low life expectancies.) However, there are interesting exceptions to this general pattern. Sri Lanka provides a well known example of a poor country with a per capita income of \$200 which has been able to bring down its death rate to 6 per 1000, its infant mortality rate to 45 per 1000 and improve its life expectancy to 69 years.<sup>3/</sup>

Within India, Kerala, although one of the poorest States in terms of its per capita income, has achieved a health status that is distinctly superior to the all-India average. Kerala's death rate is 7 per 1000 (all-India:14), its rural infant mortality rate is 56 per 1000 (all-India:136) and its life expectancy is 62 years (all-India:52)<sup>4/</sup> Both Sri Lanka and Kerala have high literacy rates. Better education, particularly among women, is one major factor that explains their improved health status. Limited as these examples are, they suggest the working hypothesis that the promotion of health can well proceed as part of, and even somewhat ahead of, the attack on poverty without waiting for the successful conclusion of the latter.

7. (Just prior to Independence, health policy and planning in India received detailed and enlightened treatment in the Report of the Health Survey and Development Committee, 1946 (the Bhore Committee)<sup>5/</sup>) In terms of general principles, the Committee pointed out that (a) no individual should fail to secure adequate medical care because of inability to pay for it (b) the health programme must, from the beginning, lay special emphasis on preventive work. (c) the need is urgent for providing as much medical relief and preventive health care as possible to the vast rural population of the country, redressing the neglect which has hitherto been the lot of the rural areas (d) health services should be placed as close to the people as possible in order to ensure the maximum benefit to the community and (e) it is essential to secure the active cooperation of the people in the development of the health programme. In the words of the Report "no lasting improvement of the public health can be achieved without arousing the living interest and enlisting the practical cooperation of the people themselves."

8. The Bhore Committee recommended a short-term and a long-term programme for the expansion of hospital facilities.<sup>6</sup> In the short-term, i.e., in ten years, its blue print

consisted of a primary unit with 4 beds for a population of 40,000 with 2 doctors, 5 nurses, 4 midwives, 4 trained dais, 2 sanitary inspectors, 2 health assistants and supporting staff; a 30-bed hospital for 2 primary units (i.e. 80,000 population); and a secondary unit with 500 beds at the 500,000 population level. In the long-term of about 40 years, the primary unit was to have a 75 bed hospital and cover a population of 10,000 to 20,000; the secondary unit was to comprise 15 to 25 primary units and have a bed strength of 650; and the District unit at a 3,000,000 population level was to have 2500 beds with a full complement of specialist facilities.<sup>6/</sup>

9. The Bhole Committee recommended that in the first ten years (i.e. by 1956), expenditure on health in India should be raised to the level of about 3 per cent of the national income. As a proportion of total government expenditure, the target it proposed for expenditure on health was 15 per cent. The Committee made a specific recommendation that "it should be a statutory obligation on Governments to spend a minimum of 15 per cent of their revenues on health activities".

10. The Committee also went into a number of topics related to health such as nutrition, health education, physical education, water supply and sanitation, housing, drugs and indigenous medicine. These questions, and environmental pollution, were examined in greater detail by a separate Committee on Environmental Hygiene in 1949.<sup>7/</sup>

11. ~~It~~ It is necessary to remind ourselves of these recommendations of the Bhole Committee, 35 years ago. (Since then, there has no doubt been improvement in India's health status.) The death rate has fallen from around 30 to around 14. The expectation of life has very gradually improved from 41.3 (1951-61) to 52.1 years of age (1976-81). But there has been no significant decrease in rural infant mortality; primary health

units are available only for an average population of 120,000; it has not been possible to deploy adequate medical or ancillary health staff in rural areas; as compared to a recommended population-doctor ratio of 2000 by the Bhore Committee for 1971, the actual ratio in the late 1970s was over 3600; available doctors are heavily concentrated in urban areas; the level and distribution of facilities in the short-term blue print of the Committee is far from realisation even towards the end of its long-term horizon of 40 years; and outlays on health in proportion to total expenditures are about half of the level recommended by the Committee.

12. (Dissatisfaction with the progress so far made has inspired the search for "alternative models" of health care. In one sense, this search amounts to an admission of defeat that resource, manpower, administrative and other constraints, have confined actual achievements to levels which are far behind the expectations in the Bhore Committee's report.) Most important of all has been the lack of political will. Another element in this search is the hope that with more attention to preventive health measures, and a greater reliance on peoples' cooperation, the thin spread of doctors, beds, and curative facilities in rural areas could be compensated.

13. (Some international influences which have promoted the search for an alternative health strategy) should be mentioned. One influence has been the Chinese approach to health care with its use of 'bare-foot' doctors, and indigenous medicines and therapeutic practices. The main elements of the Chinese approach have been held to be particularly relevant to India because like China we too are a large, populous, poor, rural nation. One author has succinctly summarised the basic principles adopted by the Chinese as "stress on the rural areas, decentralisation, de-professionalisation and de-mystification of medical practice, and mass

participation in the provision of health care and preventive measures".<sup>8/</sup> Recent thinking on India has tried to incorporate some of these elements and is reflected in the emphasis on the extension of health facilities to rural areas, on preventive measures, on the appropriate use of indigenous medicine, and on community participation.

\* <sup>On</sup> 14. (Another notable development has been the International Conference on Primary Health Care convened by the WHO and UNICEF in Alma-Ata, USSR in September 1978. The Alma-Ata declaration, which has been endorsed by India, calls for the extension of primary health care "to all" by the year 2000) (reproduced in the Annexure). It defines primary health care as including at least : education concerning prevailing health problems and methods of preventing and controlling them; promotion of proper nutrition, an adequate supply of safe water and basic sanitation; maternal and child health care, including family planning; immunization against the major infectious diseases; prevention and control of locally endemic diseases; appropriate treatment of common diseases and injuries; and provision of essential drugs. In the extension of primary health care, the Alma-Ata declaration emphasises (a) universality (b) community participation (c) affordability (d) integration with the country's health system and related sectors of development (e) preventive and promotive measures and (f) the use of front-line workers, including para-medical personnel and practitioners of traditional systems of medicine.

15. In India itself, a number of experiments in community health care have been carried out by NGOs in the 1970s in various parts of the country.<sup>9/</sup> Some have been in the area of nutrition and child care; some are projects undertaken by hospitals in rural areas around them; some have tried to combine health care with broad-based rural development; and some have emphasised cost-recovery through health insurance and/or payments for services. A number of ideas and suggestions



have emerged from these experiments on what government could do towards establishing an effective primary health care system in the country.

16. The debate on a national health policy for India has sought to be advanced by a recent report (August 1980) of a Study Group jointly set up by the Indian Council of Social Science Research (ICSSR) and the Indian Council of Medical Research (ICMR).<sup>10/</sup> Interestingly, the members of this Group include not only the representatives of the medical and health establishments but also social scientists and voluntary health workers. The report calls for a national health policy that will aim to provide "a good and adequate health care system for all citizens, and especially for women and children and poor and underprivileged groups" by the year 2000. It proposes the specific objectives of reducing the infant mortality rate in India from 120 to 60 or less, and the overall death rate from 15 to 9 in the next two decades. In operational terms, it proposes a specific health care system to be established "in a planned and phased manner by 2000 A.D." In summary, this consists of (a) a male and female community health worker in each village (b) 5-bed facilities with 2 multi-purpose workers at the 5000 population (sub-centre) level (c) a 30-bed community health centre at the 100,000 population (block) level (d) a 200 bed District Health Centre at the 1,000,000 population level and (e) specialist centres at a 5,000,000 population level. A comparison with the Bhore Committee blue print (paragraph 8 above) will show that what is being proposed in 1980 for achievement in the year 2000 is a level of services that is generally below what was proposed in 1946 for realisation in the subsequent 10 years.

17. The 'Health for all' report is a wide-ranging one. In addition to outlining its alternative health strategy, it calls for progress on a variety of 'supportive services' such

as nutrition, drinking water supply, sewerage and sanitation, village and town planning, rural and urban housing, slum clearance, control of pollution and health education. Going beyond these, it discusses and proposes targets for the rate of economic growth, full employment, improvement in the status of women, literacy, adult education, universal elementary education, welfare of scheduled castes and tribes, rural electrification, the organisation of poor and under-privileged groups, and the creation of a democratic, decentralised and participatory form of government. Indeed, the title of the report could well have been 'All in Health'!

18. It is beyond the scope of this paper to discuss the validity of feasibility of this, or any other, alternative model except that we might point out in passing that in evaluating the quest for an "alternative or appropriate technology" for health care some important questions have to be borne in mind e.g.: (a) to what extent do the alternative models really differ from say the Bhore Committee blue print which also laid stress on preventive measures, supportive services and peoples' participation? Are the differences substantive, or only in emphasis and in rhetoric? (b) Do the alternative models amount to rationalising the failure to extend curative facilities to rural areas by shifting attention to preventive care and decentralised participation? (c) will not the same constraints that have stood in the way of the implementation of earlier blue prints continue to constrain the alternative models as well?<sup>11/</sup>

19. Nor will it be appropriate for us, or within our competence, to propose yet another blue-print, or widen the discussion to matters that are, closely or loosely, ancillary to the provision of health care. For our limited purpose, it is sufficient to acknowledge the basic thesis that much more needs to be done, and can be feasibly attempted, in the direction of preventive and participatory health care; and

that simultaneously, it is necessary to correct the discrimination against rural areas in the provision of curative personnel and facilities. It is against these rather simple general principles that we shall proceed to examine the health situation in Tamilnadu.

### NOTES

- 1/ K.S.Sanjivi in Planning India's Health, Orient Longman 1971 points out (p.32) "...the threshold for suffering is inversely proportionate to the affluence of the patient... In the Voluntary Health Services - Oxfam Community Health Project a thorough study was made of certain slums and villages examining every individual in every family without any selection. During a twelve month period, out of a total of 4,676 persons examined, 3674 (80 per cent) required help either on account of the symptoms present or objective evidence of disease without the patients having any complaints."
- 2/ Goran Djurfeldt and Staffan Linberg conclude their study of health in Thaiyur village, Tamilnadu by saying "...we must beware also of the repression of one fact which so many are apt to forget: the poor health of the Indian people is rooted in their living conditions, and in the economic system which denies the majority even a mere subsistence... No system of medical care, however sophisticated, can do anything in such a situation. There is no short-cut here; just as the economic structure is the main obstacle to a reduction in birth rates, it is also the main obstacle to an improvement of people's health. There is no way to escape the conclusion that only a radical transformation of the economic structure can produce the really forceful weapons to wage the battle against disease and population growth" - Pills against Poverty, Scandinavian Institute of Asian Studies, 1975.
- 3/ There are however sharp disparities in Sri Lanka. Among estate workers literacy is much lower and infant mortality about twice as high as compared with the averages for the country.
- 4/ On the Kerala experience see P.G.K.Panikar Resources not the constraint on Health Improvement: A Case Study of Kerala, Economic and Political Weekly, November 3, 1979.

- 5/ Under the Chairmanship of Sir Joseph Bhore, this pre-Independence Committee included distinguished Indians such as Dr.B.C.Roy, Dr.A.Lakshmanaswami Mudaliar, Mr.P.N.Sapru and Mr.B.Shiva Rao. References to the Report are from Government of India, Report of the Health Survey and Development Committee Volume IV Summary New Delhi 1946.
- 6/ The Report also pointed out that "the provision of ambulances and telephone connection between all the three types of hospitals are essential for ensuring that these institutions are utilised to the largest possible extent".
- 7/ Government of India Report of the Environmental Hygiene Committee New Delhi 1949.
- 8/ David M.Smith Where the Grass is Greener, Living in an Unequal World Penguin Books 1979 page 308.
- 9/ A description of these experiments will be found in Indian Council of Medical Research New Delhi, Alternative Approaches to Health Care, 1976, See also World Bank Population and Human Resources Division Discussion Paper 81-14 on 'A Survey of Experiments and Special Projects in India', May 1981.
- 10/ Health for All: An Alternative Strategy, Report of a Study Group set up jointly by the Indian Council of Social Science Research and the Indian Council of Medical Research, New Delhi, August 1980.
- 11/ For two critical assessments of the Health for All Report see D.Banerji Mirage of Health for All in the Economic and Political Weekly, June 20-27, 1981 and K.S.Sanjivi Health for All by the year 2000 in the Hindu, Madras of July 14, 1981.

## II Health Status of Tamilnadu

It is necessary at first to gain some idea of the health status of Tamilnadu. (Although the concept of health is a wide and positive one of "physical, mental and social well being", health status is usually measured in relation to disease. Health status has to be assessed in terms of both output and inputs. The output of the health care system is reduction in morbidity and mortality through the use of promotive, preventive and curative services.<sup>1/</sup> The health system can also be assessed with reference to the principal inputs into it such as doctors and hospital beds to unit of population, the geographical spread or concentration of doctors and beds, and the expenditures on preventive and curative facilities; It should be underlined that inputs by themselves do not necessarily lead to output: although difficult to measure, the efficiency and utilisation of inputs, along with their physical availability, are crucial factors.

2. (The general measure of mortality is the Crude Death Rate (CDR) or the number of deaths per 1000 of population in a particular year or during a particular period.) Table 1 gives the CDR for Tamilnadu and 14 other States in India in 1976 based on estimates made by the Registrar General and Census Commissioner of India.<sup>2/</sup> (Tamilnadu is 8th among the 15 States in the level of its death rate) viz., 12.8). States such as Kerala, Maharashtra, Punjab, Karnataka and W. Bengal are ahead of Tamilnadu. The CDR in Tamilnadu is distinctly higher than in Kerala which has the lowest figure (viz., 7.0).

3. It is possible to analyse mortality in different age groups using estimates of age-specific death rates. These are separately available for rural and urban areas in Tamilnadu in the Sample Registration Statistics (SRS) of the Registrar General. Table 2 gives the estimates age-wise and the rural/urban composition of mortality in Tamilnadu in 1971.

This table shows that:

- (i) 38.9 per cent of all deaths relate to children under age 4.
- (ii) Under 4 child mortality is 54.3 per cent of all deaths below the age of 60.
- (iii) Infant mortality or deaths of children under age one accounts for 20 per cent of all deaths. Infant deaths constitute more than 50 per cent of child mortality under age 4.
- (iv) Deaths in the 60 plus age group are 28.4 per cent of all deaths.

4. (Child mortality, and within it infant mortality, is thus the single most important factor in overall mortality.) In this connection, it is useful to refer to some major findings relating to infant mortality in India.<sup>3/</sup> Between 1970 and 1978, the rural infant mortality rate (IMR) has remained at 136 per 1000 live births. There has been some decrease in the urban IMR from 90 in 1970 to 70 in 1978. Currently, therefore, the rural IMR is nearly twice that of the urban IMR. (A high proportion (56 per cent in rural and 60 per cent in urban) of infant deaths are neo-natal or occur soon after delivery.) The IMR is significantly higher among scheduled castes (viz., 159 as compared to 136 overall in rural areas). It varies also according to the level of education of mothers: among illiterate mothers it is 132 but only 64 in the case of mothers who have had education at the primary level or above. (The major causes of infant/child mortality are the combined effects of malnutrition and infection,<sup>4/</sup> tetanus, pre-mature deliveries, pneumonia and diarrhoea. Typhoid, jaundice, diphtheria, whooping cough and measles also figure in the case of older children.)

5. We can now turn to where Tamilnadu stands in regard to infant mortality in the all-India picture. Table 3 gives the

position in 1970 for rural and urban areas. Tamilnadu is 9th among 15 States in its rural IMR (134) and 10th in its urban IMR (90). Its IMRs, rural and urban, are more than twice that of Kerala.

6. Some idea of the major causes of mortality can be gathered from the surveys conducted under the Model Registration Scheme. Table 4 gives the comparative picture for Tamilnadu and all-India in 1976. The pattern in Tamilnadu broadly conforms to the all-India pattern except that higher proportions appear to be contributed in Tamilnadu as compared to all-India by diseases of the circulatory system and deaths due to old age, and a lower proportion under disorders of the respiratory system.

7. In regard to morbidity, information is available on institutional morbidity in rural areas in terms of new cases treated in Primary Health Centres and rural dispensaries. Table 5 gives the figures for Tamilnadu and all-India in 1977. These figures relate only to those cases which have come to, and have been treated in, PHCs and can not be taken as reflecting the overall pattern of sickness in the community. The statistics also suffer from the fact that about 40 per cent of the reported cases have not been classified. Some facts, however are of interest: (a) although a high proportion of deaths is due to childhood diseases, a very low proportion of cases dealt with in PHCs relates to childhood infections (b) most of institutional morbidity relates to water and food borne diseases, nutritional disease and respiratory infections (c) sexually transmitted diseases (STD) are an important cause of morbidity and Tamilnadu has a high proportion under this head as compared to the all-India pattern.

8. (Studies relating to nutrition and child health have shown that diarrhoea, malnutrition and specific nutrient deficiencies, principally of vitamin A are the leading forms

of morbidity in pre-school children.<sup>5/</sup> In one study, malnutrition was identified as a leading or associated cause of 41.8 per cent of deaths among pre-school children. In another study it was estimated that prevalence of vitamin A deficiency among pre-school children, which can lead to impaired vision or blindness, was around 27 per cent. (Among adults, a main nutrition problem was anaemia from shortages of iron and folate which affect more than half of Tamilnadu's pregnant and nursing mothers.)

9. Mortality at the other end of the age spectrum viz., in the 60 plus age group accounts for nearly a third of overall mortality. (Malnourishment due to poverty and destitution is a major factor in old age deaths.) Estimates are that 6 per cent of this age group, and nearly half of landless agricultural labourers who are above 60, are exposed to destitution in Tamilnadu.<sup>6/</sup>

10. We can also piece together some data on (the incidence of major communicable diseases in Tamilnadu:<sup>7/</sup>

-- (In 1978 and 1979, Tamilnadu held a prominent place in the cholera map of India contributing 24.4 per cent of all notified cases in the country. There were about 2700 cases of cholera on an average per annum in 1978-80, the bulk of them (about 75 per cent) occurring in Madras city.)

-- (Since the early 1970s, there has been a recurrence of malaria. (In 1978-80, an annual average of over 81,000 cases were reported. Madras City contributed 41 per cent of these cases, Ramanathapuram (particularly Rameswaram island) another 32 per cent with the bulk of the balance coming from Salem, Coimbatore, Periyar, North Arcot and Dharmapuri.)

-- (Filaria is endemic in Tamilnadu. In 1978-80, an annual average of over 10,000 cases were detected.) The population at risk from filaria in the State is 11.5 per cent (1976) of the all-India figure.



-- An annual average of 11,500 cases of acute gastro-enteritis were reported in Tamilnadu in 1978-80.

✓-- About 7400 cases of tuberculosis were institutionally treated in Tamilnadu in 1979. The prevalence rate of the disease will be much higher since according to an ICMR sample survey (1955-58), it was estimated at around 18 per 1000.

✓-- Tamilnadu has the largest incidence of leprosy among all the States in India with a prevalence rate of around 15 per 1000.) Of an all-India total of 25.59 lakh cases of leprosy on record in March 1980, 7.15 lakh cases or 28 per cent were in Tamilnadu.

✓-- Of 1.73 lakh institutional cases of 19 communicable diseases reported in Tamilnadu in 1979, dysentery accounted for 62 per cent; gastro-enteritis for about 18 per cent; whooping cough, tuberculosis and syphilis together came to 13 per cent; other major contributors were tetanus and typhoid.)

11. We saw that in Sri Lanka and Kerala an improved health status and high levels of literacy went together. The position of Tamilnadu in regard to literacy will be of interest. According to the 1981 Census, the overall literacy rate in Tamilnadu was 45.78 per cent while in Kerala it was 69.17 per cent. Female literacy in Tamilnadu was 34.12 per cent as compared to 64.48 per cent in Kerala. There are wide variations among districts. In 1981 Dharmapuri which was the most backward district in literacy had an overall literacy percentage of only 18.28. Tamilnadu has also registered one of the slowest rates of growth between 1971 and 1981 in literacy, male and female, among all the major states in India. In rural areas, and among the scheduled castes, the literacy level is abysmally low. Figures in this regard from the 1981 Census are not yet available but in 1971, the rural female literacy among the scheduled castes was as low as 8.9 per cent.

12. (To sum up, Tamilnadu is not among the advanced States in India as far as its health status is concerned. Its death rate and its infant mortality rates are not much above the all-India averages. The health performance of Tamilnadu measured in terms of output can, therefore, be described as only 'mediocre'. As is the case in the rest of India, and in fact in most developing countries, the attack on mortality in Tamilnadu has to concentrate on reducing child mortality and, in particular, the infant mortality component of it<sup>8/</sup>) In this connection, special attention has to be given to rural areas which contain a high proportion of the total population (about 70 per cent), have a significantly higher infant mortality rate than urban areas (about twice) as well as higher proportions of the poor, the malnourished and the illiterate. (Given the pattern of mortality and morbidity, the highest priority attaches to maternity and child health services, immunisation against childhood infections, preventive health care principally directed against water-borne and air-borne diseases, and the control of communicable diseases.) In all these respects, both rural and urban areas deserve equal attention. As Table 2 will show infant mortality contributes to a higher proportion of deaths in urban as compared to rural areas; this is because mortality in higher age groups is less in the urban population. (Malaria and cholera also have a high incidence in urban areas, particularly among the poor who live in congested and insanitary dwellings.)<sup>9/</sup> (These facts) are worth recalling as we proceed to look at the nature and distribution of health care facilities in Tamilnadu.

NOTES

- 1/ In recent years, the Physical Quality of Life Index (PQLI) has attracted much attention. Two of the three indicators on the basis of which the PQLI is computed relate to health viz., the infant mortality rate and expectation of life at age one; literacy rate being the third indicator. See Morris D. Morris Measuring the Conditions of the World's poor: The Physical Quality of Life Index Pergamon Press 1979.
- 2/ Mortality rates are estimated by the Registrar General on the basis of annual sample surveys conducted as part of the Sample Registration Scheme (SRS). Questions can, and have been, raised as to the degree of reliability of these estimates, particularly when it comes to inter-State comparisons; the accuracy of the estimate in regard to one State may be more or less when compared to that relating to another State. We are using these estimates (a) because no other estimates are available and (b) in the belief that they could be depended upon at least to give a broad idea of where States stand in relation to one another.
- 3/ These are taken from Registrar General, India Survey on Infant and Child Mortality, 1979 A Preliminary Report, New Delhi 1980.
- 4/ An important cause of infection arises from the use of baby foods in preference to breast feeding.
- 5/ The Tamilnadu Nutrition Survey (1970-73), and studies carried out by the Institute of Child Health, Madras and the Erskine Hospital, Madurai.
- 6/ S.Guhan Social Security: Lessons and Possibilities from the Tamilnadu Experience MIDS 1980.
- 7/ The sources are Government of Tamilnadu Demand for Public Health Grants 1981-82 and Government of India Pocket Book of Health Statistics of India 1980.
- 8/ It is well known that the low life expectancy in developing countries is largely attributable to very high death rates among children. Life expectancy at age 5 in developing countries is only six to eight years less than in developed countries.
- 9/ In the slum areas of Madras City where 30 per cent of its population lives, one water tap serves 175 persons and one toilet seat has to be shared by 45 persons.

Table 1 : Estimated State-wise Death Rates in India - 1978

	(per 1000)
1. Andhra Pradesh	13.2
2. Assam	13.1
3. Bihar	12.1 <sup>a/</sup>
4. Gujarat	12.7
5. Haryana	13.4
6. Karnataka	11.7
7. Kerala	7.0
8. Madhya Pradesh	15.1
9. Maharashtra	10.3
10. Orissa	14.1
11. Punjab	11.6
12. Rajasthan	15.6
13. Tamilnadu	12.8
14. Uttar Pradesh	20.2
15. West Bengal	11.9 <sup>a/</sup>
All India	14.1

<sup>a/</sup> relates to 1976

Source: Government of India, Pocket Book of Health Statistics of India 1980

Table 2 : Estimates of age-wise mortality in Tamilnadu 1971<sup>a/</sup>

Age Group	Rural		Urban		Combined	
	Deaths	Per cent in total	Deaths	Per cent in total	Deaths	Per cent in total
0 - 1	99,701	19.0	28,894	24.2	128,595	20.0
1 - 4	105,728	20.2	16,001	13.4	121,729	18.9
5 - 9	22,128	4.2	3,380	2.8	25,508	4.0
10 - 14	7,564	1.4	2,914	2.4	10,478	1.6
15 - 19	9,547	1.8	2,173	1.8	11,720	1.8
20 - 24	9,476	1.8	2,688	2.2	12,164	1.9
25 - 29	11,494	2.3	4,641	3.9	16,135	2.5
30 - 34	12,306	2.4	2,290	1.9	14,596	2.3
35 - 39	14,202	2.7	2,519	2.2	16,721	2.6
40 - 44	15,754	3.0	4,081 ✓	3.4	19,838	3.1
45 - 49	17,800	3.4	4,194	3.5	21,994	3.4
50 - 54	29,155	5.6	4,712	3.9	33,867	5.3
54 - 59	21,957	4.2	5,226	4.4	27,183	4.2
60 -	146,756	28.0	35,862	30.0	182,618	28.4
All ages	523,568	100.0	119,578	100.0	643,146	100.0

<sup>a/</sup> Estimated by applying the infant mortality and age-specific death rates for Tamilnadu as given in Registrar General of India, Sample Registration Bulletin Vol. IX No.4 October 1975 to the 1971 Census population in Tamilnadu.

Table 3 : State-wise Infant Mortality Rates 1970

	<u>Rural</u>	<u>Urban</u>
1. Andhra Pradesh	122.2	79.1
2. Assam	138.4	78.0
3. Bihar	106.1	75.4
4. Gujarat	159.2	131.0
5. Haryana	82.1	61.4
6. Karnataka	101.0	73.2
7. Kerala	55.9	39.7
8. Madhya Pradesh	151.7	113.2
9. Maharashtra	102.5	84.3
10. Orissa	139.8	103.3
11. Punjab	103.7	86.5
12. Rajasthan	148.5	104.5
13. Tamilnadu	133.9	89.9
14. Uttar Pradesh	165.4	110.2
15. West Bengal	113.4	61.0
All-India	136.4	89.9

Source: Registrar General India Sample  
Registration Bulletin Vol. IX  
 No.4 October 1975.

Table 4: Mortality according to major causes Tamilnadu  
and India 1976

Major cause	Deaths (Per cent)	
	Tamilnadu	India
1. Accidents and injuries <sup>1/</sup>	2.5	5.1
2. Child birth and pregnancy <sup>2/</sup>	1.0	1.1
3. Fevers <sup>3/</sup>	9.2	12.0
4. Digestive disorders <sup>4/</sup>	10.3	9.2
5. Coughs (disorders of the respiratory system) <sup>5/</sup>	10.7	20.9
6. Disorders of the Central nervous system <sup>6/</sup>	4.3	3.6
7. Diseases of the circulatory system <sup>7/</sup>	17.3	8.5
8. Other clear symptoms <sup>8/</sup>	7.4	8.2
9. Causes peculiar to infancy	12.0	12.5
10. Senility	23.6	17.0
11. Others	1.7	1.9
	100.00	100.0

1/ Mainly suicide, vehicular accidents, drowning

2/ Mainly due to puerperal sepsis

3/ Largely undiagnosed. Includes influenza and typhoid

4/ Mainly debility and malnutrition, abdominal disorders, gastro-enteritis, ulcers

5/ Mainly tuberculosis, asthma, pneumonia, bronchitis

6/ Mainly paralysis, meningitis

7/ Mainly anaemia and heart diseases

8/ Includes cancer, diabetes, tetanus, cirrhosis of liver.

Source: Registrar General India Causes of Death 1975 and 1976 A Survey New Delhi 1979 and Directorate of Public Health and Preventive Medicine, Madras Model Registration Scheme 1975-77.

Table 5 : Pattern of Institutional Morbidity in Rural  
Areas Tamilnadu and India 1977

Percentage of new cases treated  
 in PHCs/Dispensaries

Major causes	Tamilnadu	India
1. Water and food borne diseases	16.6	16.9
2. Childhood infections	0.5	0.8
3. Nutritional diseases	8.4	9.3
4. Eye infections and disorders	3.5	2.8
5. Respiratory infections	5.4	6.8
6. Chronic disorders	4.4	4.6
7. Vector borne diseases	0.1	2.7
8. Animal bites and injuries	4.0	5.4
9. Tuberculosis	1.1	0.5
10. Sexually Transmitted Diseases	16.4	9.0
11. Others	40.0	41.3

Source: Government of India Pocket Book of Health  
Statistics of India 1980



### III Hospital beds, Doctors and Expenditures

#### Hospital beds

We may now attempt an assessment of health care facilities in Tamilnadu in terms of three principal inputs viz., hospital beds, doctors and budgetary expenditures.

2. Two widely used indicators in regard to the availability of health care facilities are the population-bed ratio and the population-doctor ratio. Table 6 gives the position of Tamilnadu vis-a-vis other major States in India in respect of these two indicators. In regard to the population-bed ratio, Tamilnadu is among the more advanced States being 4th among 17 States but is significantly behind Kerala and Maharashtra. In the population (allopathic) doctor ratio, Tamilnadu is only the 8th among 17 States. These statistics are, however, only of indicative value. As the table shows, comparable figures for the same year are not available for all States. Moreover, the number of doctors has been estimated on the basis of registrations with State Medical Councils and may not represent actual availability.

3. Detailed information is available on the distribution of hospital beds in Tamilnadu.<sup>1/</sup> As on 1st January 1977, a total of 42,629 beds were available in Tamilnadu, in government, quasi-government and recognised private institutions. This figure includes beds in specialised institutions (such as for maternity, tuberculosis, leprosy, cancer, ophthalmic, orthopaedic and mental cases) and beds in institutions that have a restricted clientele (such as those in Employees State Insurance, Railway, Police, Jail and Port Trust hospitals). Such beds come to a total of 15,361. Excluding them, the number of beds in "general" medical institutions was 27,268.

4. Of these 27,268 general beds, 3850 (or 14.1 per cent) were in Madras City and 23,418 (or 85.9 per cent) were in the districts. In 1977, the population of Madras City (29.3 lakhs) was 6.4 per cent of the estimated total population of the State (458.6 lakhs). The City's share in beds available was accordingly more than twice its population proportion. The overall population-bed ratio was 1682 in the State as a whole. In the City, it was 761. In the districts taken as a whole, it was 1833. In other words, the City population was nearly  $2\frac{1}{2}$  times as well served as the district population.

5. Of 23,418 beds in the districts, 5215 or 22.3 per cent were in institutions managed by voluntary and non-governmental organisations. On the other hand, 3561 out of 3850 general beds in the City or 92.5 per cent were in government hospitals. If the population per government bed is considered, the disparity between the city and the districts becomes wider: 822 in the City and 2358 in the districts.

6. Table 7 gives the distribution of beds (government and private) district-wise and the location of beds within each district in (a) district headquarters (b) other urban areas (c) PHCs and (d) rural areas. The following table summarises the location of beds at different levels and the disparities involved:

	<u>Beds</u>	<u>Per cent to total</u>	<u>Population proportion</u>	<u>Population- bed ratio</u>
Madras City	3,850	14.1	6.4	761
Dt. Headquarters	10,238	37.5	10.0	448
Dt. Urban	8,568	31.4	14.2	761
Dt. Rural	4,612	17.0	69.4	6901
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Total	27,268	100.0	100.0	1682
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7. Table 8 gives a comparison of Tamilnadu with other States in regard to the proportion of beds in rural areas. These figures include all beds, i.e., in general and specialised institutions. Tamilnadu is below the all-India average and the 7th among 15 States. Kerala is strikingly ahead of all other states.
8. Table 9 gives the population-bed ratio district-wise as also the population-bed ratio in the District headquarters. The average population-bed ratio for all the districts taken together is 1833. Around this average, there are wide variations inter-se between districts ranging from a low of 773 in the Nilgiris to a high of 4766 in Dharmapuri. Districts where the ratio is more adverse than the average are Dharmapuri (4766), S.Arcot (3480), Chengalpattu (2536), Salem (2531), Pudukottai (2482), Tiruchirappalli (2052), and Coimbatore/Periyar (1856).
9. Taking district headquarters as a group, the population-bed ratio is only 448. This is much higher than the all district ratio of 1833 and is distinctly better than even the city ratio of 761. In fact, all the district headquarters other than Dharmapuri, Salem and Coimbatore-Erode have a better ratio than the City. Some of them like Chengalpattu (114), Thanjavur (151) and Vellore (157) have population-bed ratios as good as in the United States of America (150).
10. Government hospitals in district headquarters are of an average size of 500 beds while the average bed strength in taluk and non-taluk hospitals is 50. The hospitals in district headquarters are generally equipped with the complement of X-ray, pathological facilities, and specialist clinics. On the other hand, the coverage of the 226 taluk and non-taluk hospitals in the State with specialities is still meagre. In 1977, there were dental clinics in 70 of them, blood banks in 17, STD clinics in 8, paediatric clinics in 4, ophthalmic clinics in 4, ENT clinics in 3, orthopaedic clinics in 2 and psychiatric clinics in 2.<sup>2/</sup>

11. It could be argued with some justification that hospitals and facilities in the district headquarters serve not only the population in the headquarters town but also patients from outlying areas. Location admittedly is not the same as coverage. But the fact remains that location greatly influences the effective access of patients, particularly the poor, to available facilities. In 1979-80 for instance, the total bed strength in hospitals and dispensaries under the control of the Director of Medical Services and Family Welfare was 13,713 and the number of out patients treated in them on an average per day was 1,66,410.<sup>3/</sup> This means that for every in-patient bed available about 12 out patients were being handled. Location greatly influences the utilisation of out-patient facilities. Studies made in India have shown that the population of patients attending a dispensary decreased by 50 per cent for every additional half-mile between the place of residence and the dispensary. In another estimate, it was found that over 60 per cent of patients came from within one mile of the primary health centre.<sup>4</sup> One can reasonably expect that most inpatients in headquarters hospitals are also likely to be from within a fairly restricted area around it.

12. If the present concentration of hospital facilities in the City and in district headquarters is to be corrected, it is necessary (a) to expand and upgrade existing taluk and non-taluk hospitals (b) to locate new facilities in a planned manner to rectify the rural-urban imbalance and (c) in doing so, reduce inter-district disparities in the availability of hospital facilities.

13. There is no evidence of any deliberate and conscious health planning in Tamilnadu which is addressed to these clear priorities. On the other hand, indications are that the actual direction of policy in Tamilnadu will continue to favour urban centres. The Sixth Five Year Plan (1980-85) for the State contemplates two more peripheral hospitals in

the City and two in 2 district headquarters. 1000 more beds are to be added to district headquarters hospitals and nine intensive cardiac units opened. Addition of beds in taluk and non-taluk hospitals will be only a total of 300 in 18 of them. In the Plan period, specialist clinics are to be established in only 9 of them, X-ray blocks in 2 and maternity blocks in 2.<sup>5/</sup>

### Doctors

14. Table 6 has shown that the population-(allopathic) doctor ratio in Tamilnadu as a whole was of the order of 3400 in the late 1970s and close to the all-India average. A number of States had more favourable ratios if the estimates in Table 6 are taken as a basis.

15. In order to analyse the distribution of doctors within the State, we have to depend on two sources of data neither of which is wholly satisfactory. The 1971 Census gives figures of "physicians and surgeons". This occupational group (07) however includes not only allopathic, ayurvedic, homeopathic and unani doctors but also dental surgeons, veterinarians, pharmacists, dieticians and nutritionists, public health physicians, and physicians and surgeons not otherwise classified. While disaggregated data for each of these sub-groups is available for the State as a whole, only the group totals are available at the district level. The second source consists of district-wise figures of allopathic doctors registered with the Tamilnadu Medical Council. Registration figures can not be equated with the district-wise availability of allopathic doctors because various factors such as death, discontinuance and migration would lead to a difference between registration and actual availability.

16. Table 10 reproduces the 1971 Census figures for different kinds of medical doctors in the rural and urban areas of Tamilnadu. Of a total of 19,317 doctors, 8201 were allopaths,

6067 were homeopaths, 4564 were ayurvedic and 485 were unani practitioners. 6614 allopaths or 80.6 per cent of the total number of allopathic doctors were in urban areas. Among indigenous medical practitioners, 5369 out of a total of 11,116 or 48.3 per cent were in urban areas. In the rural areas, there were 1,587 allopaths and 5,747 practitioners of indigenous medicine. This means that 78.4 per cent of doctors in rural areas were indigenous medical practitioners. According to Census data, there was one allopathic doctor per 18,108 of population in the rural areas in 1971.

17. As stated earlier, the total number for the Census occupational group (07) of "physicians and surgeons" is available on a district-wise basis. From this, we have to exclude the numbers in the sub-groups relating to dental surgeons, veterinarians, pharmacists, and nutritionists, public health physicians and physicians and surgeons not elsewhere classified to estimate the total of medical doctors in each district. In order to do this, we have made the assumption that these sub-groups together account for the same proportion, viz., 40 per cent, in the Census group 07 in each district as they do in the Tamilnadu total. On this basis, the district-wise availability of medical doctors (allopathic, homeopathic, ayurvedic and unani) in 1971 has been estimated in Table 12. The table also gives the corresponding population-doctor ratios. For all the districts taken together, the average was 2123. Dharmapuri, S.Arcot, Chengalpattu, Ramanathapuram, Tiruchirapalli and N.Arcot had ratios higher than the average.

18. Turning to the registration statistics, we find that progressive registrations of allopathic doctors upto 1971 was 7,717. This is not far different from the Census figure of 8201. The district-wise breakdown is given in Table 11. Registrations in the City (up to 1971) came to 2783 or 36 per cent of the total. If this taken to be the availability of doctors in the City, it gives a population - (allopathic)

doctor ratio of 887 in the City in 1971. On the basis of registration data, the population doctor ratio for allopathic doctors in the districts will come to 7,821 in 1971. In 1976, registration figures for allopathic doctors was 4600 in the City and 8731 in the districts. The corresponding population-doctor ratios would be 621 (City) and 4840 (districts).

19. The total number of allopathic doctors in Tamilnadu in 1978 could be estimated to be of the order of 15,000.<sup>6/</sup> Of this total, about 5280 were in government employment, about 2110 in medical colleges and teaching hospitals, about 2650 in hospitals under the Director of Medical Services and Family Welfare and about 520 in the Public Health establishment.<sup>7/</sup> There were at the same time a large number of doctors on the live registers of employment exchanges seeking employment. The figure for Tamilnadu as on 31st December 1979 was 1761.<sup>8/</sup> Thus about two-thirds of the total number of doctors were in the private sector. In as much as government doctors in Tamilnadu are also allowed private practice, it follows that the public sector has command over only a minor portion of the professional time of doctors trained and resident in Tamilnadu.

20. The output of doctors from the 8 medical colleges in the State is about 1000 per annum.<sup>9/</sup> Some rough estimate of the cost to the State of producing a MBBS graduate is possible. The current annual level of expenditure on medical colleges is of the order of Rs.7 crores.<sup>10/</sup> Based on their relative strengths, it can be estimated that 25 per cent of the staff are on the non-clinical, non-medical and administrative staff. We can also assume reasonably that 50 per cent of the time of the clinical staff is spent on teaching, including didactic teaching in the teaching hospitals attached to medical colleges. On this basis, 62.5 per cent of the total expenditure or Rs.4.38 crores per annum could be related to an annual output of 1000 medical

graduates. As a reasonable rough estimate, the cost to the State to produce one medical graduate can be arrived at as Rs.44,000.

### Expenditures on Medical and Health facilities<sup>11/</sup>

21. An aggregate picture of government expenditures on medical and health facilities can be gained by relating the level of the outlay in these sectors to the total Plan and budgetary expenditures in Tamilnadu. Table 12 gives the relevant figures. Expenditures on Medical and Health in the State Plan have been budgeted at a level of Rs.25.89 crores in 1981-82. This figure excludes outlays on Centrally-sponsored schemes (mainly family planning) and on water supply. In the three years 1979-80 to 1981-82, Plan expenditures on Medical and Health have totalled to Rs.44.92 crores or 3.2 per cent of the overall Plan outlays in these years. In the Sixth Plan (1980-85), the allocation for Medical and Health is Rs.67.8 crores in a State Plan of Rs.3150 crores or 2.15 per cent.

22. Plan outlays in any year represent the expenditures on additional facilities started in that year and the maintenance expenditure on facilities created in the current Plan period. The Budget on the other hand gives total expenditures, Plan and non-Plan. Excluding family planning and water supply, the revenue and capital expenditures on Medical and Health in the 1981-82 Budget were Rs.97.44 crores or 7.6 per cent of the total revenue and capital outlays.

23. Inter-state comparisons of expenditures on health (including medical) will be of some interest. Table 14 gives the per capita expenditure on health (excluding family planning) in major States in India in 1977-78. There are obvious limitations in taking these figures as a reflection of real rather than nominal expenditure on health because of differences in patterns of expenditures,



salary scales, diet and drug costs, and so on. However, the table shows that Tamilnadu's per capita nominal expenditures were a little below the all-India average and 7 other States were ahead of Tamilnadu in their per capita health outlay.

24. An attempt has been made in Table 14 to recast the budget figures in broad functional categories. It will be seen that the directly identifiable outlay on the control of communicable diseases and on primary health care is Rs.20.31 crores or 20.8 per cent of the overall Medical and Health budget of Rs.97.44 crores in 1981-82. This is roughly the same order of expenditure on medical education and on City hospitals, (viz., Rs.20.18 crores) and amounts to a per capita outlay of about Rs.4.2 in Tamilnadu.<sup>12/</sup> The format of the budget classification does not permit a more detailed analysis of expenditures at different levels, primarily because all hospitals in the districts whether at the district headquarters or elsewhere are clubbed together. However, expenditures have to be generally related to the location of physical facilities and the latter, as we have seen already, are highly concentrated in the City and in district headquarters.

25. It will be useful to review the present level of expenditure on medical and health in relation to certain targets. It will be recalled that the Bhore Committee's recommendation was that governments should be statutorily required to spend not less than 15 per cent of their revenues for health. On this basis, the normative expenditure on health in Tamilnadu should be twice the current level or of the order of Rs.200 crores per annum. The "Health for All" Study Group have proposed a target of 6 per cent of the national income on health to be reached in the year 2000. On this basis, Tamilnadu will need to step up the outlay on health from about Rs.100 crores now to Rs.300 crores (in constant prices) in the next two decades. This will imply, in constant

prices, an annual average growth of about 6 per cent. In another recommendation, the "Health for All" group have proposed an annual increase of 8 to 9 per cent in constant prices in the health budget. Assuming reasonably an annual inflation rate of 10 per cent, the annual increases to the health budget will need to be of the order of 15 to 20 per cent to achieve a real growth rate of 5 to 10 per cent per annum. Even with such a rate of increase, the Bhore Committee's short-term norm can be reached in only about 10 years from now.

#### NOTES

- 1/ Government of Tamilnadu Hand Book of Medical Statistics Madras 1979.
- 2/ Ibid
- 3/ Government of Tamilnadu Performance Budget 1981-82 Medical Services and Family Welfare Madras 1981.
- 4/ World Bank Health Sector Policy Paper 1980 (page 39).
- 5/ Tamilnadu State Planning Commission Sixth Five Year Plan 1980-85 A Summary Madras 1981.
- 6/ Based on a registration figure of 13,300 as on 1.1.1977 and adding two year's output at 1,000 per annum.
- 7/ Based on figures in Government of Tamilnadu Report of the Third Tamilnadu Pay Commission 1978.
- 8/ Government of India Pocket Book of Health Statistics of India 1980.
- 9/ Government of Tamilnadu Performance Budget 1981-82 Medical Education Madras 1981.
- 10/ Ibid
- 11/ Figures are based on Government of Tamilnadu Annual Plan-1981-82, Budget Memorandum 1981-82 and Demands for Grants Nos 18 and 19, 1981-82.
- 12/ In contrast, the per capita cost in the ESI scheme is around Rs.150 per annum.

Table 6. State-wise ratio of population to beds and doctors  
1979

	Population per	
	<u>Bed</u>	<u>Doctor</u>
1. Andhra Pradesh	1,484 <sup>2/</sup>	2,789 <sup>1/</sup>
2. Assam (and Mizoram)	1,900 <sup>3/</sup>	2,502
3. Bihar	2,916 <sup>2/</sup>	4,666 <sup>1/</sup>
4. Gujarat	1,041 <sup>2/</sup>	2,628 <sup>1/</sup>
5. Haryana	1,684	5,776
6. Karnataka	1,261	4,869 <sup>4/</sup>
7. Kerala	576	2,493
8. Madhya Pradesh	3,310 <sup>2/</sup>	6,825
9. Maharashtra	866 <sup>3/</sup>	1,785
10. Orissa	2,502 <sup>2/</sup>	3,678
11. Punjab	1,480 <sup>2/</sup>	2,024
12. Rajasthan	1,897 <sup>2/</sup>	4,362
13. Tamilnadu	1,111 <sup>3/</sup>	3,408
14. Uttar Pradesh	2,255 <sup>3/</sup>	5,084
15. W. Bengal	1,168 <sup>3/</sup>	1,732
All India	1,392	3,622

1/ 1978    2/ 1977    3/ 1976    4/ 1972

Source: Government of India Pocket Book of Health  
Statistics of India 1979.

Table 7 Distribution of beds in Districts in Tamilnadu 1977

District	District headqua- rters	Other urban areas	Total urban	PHCs	Rural	PHC & rural	Grand total
1. Chengalpattu	416 <sup>a/</sup>	606	1022	162	136	298	1320
2. N.Arcot	1576	744	2320	228	54	282	2602
3. S.Arcot	280	477	757	204	180	384	1141
4. Dharmapuri	50	209	259	96	42	138	397
5. Salem	618	405	1023	210	77	287	1310
6. Coimbatore and Periyar	1480 <sup>b/</sup>	744	2224	270	135	405	2629
7. Nilgiris	291	371	662	30	16	46	708
8. Madurai	1804	1180	2984	210	457	667	3651
9. Tiruchirra- palli	925	488	1413	186	122	308	1721
10. Thanjavur	1211	1114	2325	204	204	408	2733
11. Pudukkottai	206	76	282	60	79	139	421
12. Ramanathapuram	175 <sup>c/</sup>	1193	1368	192	157	349	1717
13. Tirunelveli	663	821	1484	186	310	496	1980
14. Kanyakumari	543	140	683	54	351	405	1088
All Districts	10238	8568	18806	2292	2320	4612	23416

<sup>a/</sup> Chengalpattu is taken as district headquarters

<sup>b/</sup> Combined total of beds in Coimbatore and Erode

<sup>c/</sup> Ramanathapuram is taken as district headquarters.

Source: Government of Tamilnadu Hand Book of Medical Statistics Madras 1979.

Table 8 Percentage of beds in rural areas to total beds 1980

	(Per cent)
1. Andhra Pradesh	11.1
2. Assam	9.6
3. Bihar	2.6
4. Gujarat	4.6
5. Haryana	5.0
6. Karnataka	8.6
7. Kerala <sup>a/</sup>	50.2
8. Madhya Pradesh	2.3
9. Maharashtra <sup>a/</sup>	6.9
10. Orissa <sup>a/</sup>	19.2
11. Punjab	20.7
12. Rajasthan	4.4
13. Tamilnadu	9.3
14. Uttar Pradesh <sup>a/</sup>	6.8
15. W. Bengal	18.5
All-India	13.1

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<sup>a/</sup> Refers to 1979

Source: Government of India Pocket Book of Health Statistics of India 1980

Table 9 District-wise population-bed ratios in 1977

District	Population - bed	
	In District headquarters	For entire District
1. Chengalpattu	114 <sup>a/</sup>	2536
2. N. Arcot	157	1589
3. S. Arcot	457	3480
4. Dharmapuri	1023	4766
5. Salem	833	2531
6. Coimbatore & Periyar	806 <sup>b/</sup>	1856
7. Nilgiris	267	773
8. Madurai	501	1189
9. Tiruchirrapalli	657	2052
10. Thanjavur	151	1424
11. Pudukkottai	427	2482
12. Ramanathapuram	261 <sup>c/</sup>	1824
13. Tirunelveli	489	1764
14. Kanyakumari	316	1252
All Districts	448	1833

a/ Chengalpattu is taken as district headquarters

b/ Combined total of beds in Coimbatore and Erode

c/ Ramanathapuram is taken as district headquarters.

Source: Government of Tamilnadu Hand Book of Medical Statistics Madras 1979. The 1981 Census population has been used to compute the ratios for district headquarters.

Table 10 Medical Personnel in Tamilnadu 1971

	<u>Urban</u>	<u>Rural</u>	<u>Total</u>
Physicians and Surgeons:			
Allopathic	6,614	1,587	8,201
Ayurvedic	2,599	1,965	4,564
Homeopathic	2,465	3,602	6,067
Unani	305	180	485
	11,983	7,334	19,317

Source: Census of India, 1971

Table 11 Allopathic doctors registered by districts in  
Tamilnadu.

Progressive Registrations Up to:

	<u>1971</u>	<u>1976</u>
1. Madras	2,783	4,600
2. Chengalpattu	167	225
3. N. Arcot	654	1,123
4. S. Arcot	290	474
5. Dharmapuri	48	126
6. Salem	434	742
7. Coimbatore (including Periyar)	662	1,190
8. Nilgiris	102	169
9. Thanjavur	512	863
10. Tiruchirrapalli	443	829
11. Madurai	718	1,288
12. Pudukkottai	-	20
13. Ramanathapuram	336	600
14. Tirunelveli	429	792
15. Kanyakumari	139	290
	<u>7,717</u>	<u>13,331</u>

Source: Tamilnadu Medical Council, Madras



Table 12 Estimates of doctors (allopathic, ayurvedic, homeopathic and unani) district-wise in Tamilnadu, 1977

	<u>Doctors<sup>a/</sup></u>	<u>Population-doctor ratio</u>
1. Madras	2,721	907
2. Chengalpattu	995	2,927
3. N. Arcot	1,569	2,394
4. S. Arcot	957	3,781
5. Dharmapuri	344	4,878
6. Salem	1,278	2,342
7. Coimbatore (including Periyar	2,277	1,921
8. Nilgiris	533	927
9. Thanjavur	2,019	1,902
10. Tiruchirrapalli	1,481	2,599
11. Madurai	1,887	2,087
12. Pudukkottai	N.A.	N.A.
13. Ramanathapuram	1,029	2,779
14. Tirunelveli	1,500	2,133
15. Kanyakumari	817	1,497
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Tamilnadu	19,407 <sup>b/</sup>	2,123
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<sup>a/</sup> Estimated as 60 per cent of the Census 1971 totals for Group 07 (Physicians and Surgeons including dental surgeons, veterinarians etc.)

<sup>b/</sup> Slightly different from the total of 19,317 in Table 10 due to rounding off.

Table 13. Budgetary expenditures on Medical and Health  
in Tamilnadu

(Rs. crores)

	1979-80	1980-81	1981-82
	Actuals	Revised Estimate	Budget Estimate
<u>Plan</u>	4.56	14.47	25.89
<u>Budget</u>			
Revenue	67.28	79.30	83.31
Capital	1.41	7.15	14.13
Total	68.69	86.45	97.44

Source: Government of Tamilnadu Annual Plan 1981-82  
1981-82 and Budget Memorandum 1981-82

Table 14 Statewise per capita expenditure on Medical and Health 1977-78

	Rs.
1. Andhra Pradesh	13.49
2. Assam (including Mizoram)	12.24
3. Bihar	6.94
4. Gujarat	17.06
5. Haryana	18.91
6. Karnataka	12.64
7. Kerala	19.26
8. Madhya Pradesh	10.76
9. Maharashtra	16.88
10. Orissa	11.31
11. Punjab	20.94
12. Rajasthan	19.69
13. Tamilnadu	14.73
14. Uttar Pradesh	8.11
15. West Bengal	16.54
All India	15.05

Source: Government of India Pocket Book of Health Statistics of India 1980.

Table 15 Functional classification of Medical and Health Expenditures in Tamilnadu 1981-82

	<u>Expenditure</u> <u>(Rs. lakhs)</u>	<u>Percentage</u> <u>to total</u>
1. Administrative and other overheads	5.18	5.3
2. Buildings	14.13	14.5
3. Employees State Insurance	7.02	7.2
4. Public Health Regulation	1.54	1.6
5. Indigenous Medicine	1.71	1.8
6. Medical Education	7.37	7.6
7. City hospitals	12.81	13.1
8. District hospitals	27.37	28.1
9. Communicable diseases	7.18	7.4
10. Primary health facilities	13.13	13.4
	<u>97.44</u>	<u>100.0</u>

#### IV Primary Health Care in Tamilnadu

In this section, we will take a brief overview of primary health care facilities in Tamilnadu.<sup>1/</sup> (In the rural areas, the basic network of health facilities consists of the PHC at the block level and sub-centres under the control of the PHC. The PHCs mainly provide out-patient facilities but also contain six beds for emergencies, maternity cases and vasectomies. Each PHC has an operating room, a pharmacy and a laboratory. Drugs are provided to out patients.) The sanctioned strength of doctors for each PHC is 3. The annual allotment for drugs is Rs.20,000. There are a total number of 383 PHCs in Tamilnadu, one each in 365 Panchayat Unions/ Development Blocks and 2 each in 9 unions. On an average, each PHC at present covers a population of about 1,18,000 and an area of 340 square kilometres (or a radius of 18.5 kilometres).

2. (Since 1977-78, the Tamilnadu government have initiated a scheme to attach mobile medical teams to PHCs in a phased programme. This scheme has been conceived of as an alternative to the village-level Community Health Workers (CHW) scheme promoted by the Central government which has not been accepted in Tamilnadu.) (Mobile medical teams have been sanctioned) so far in 249 PHCs. In these PHCs, 2 out of the 3 PHC doctors are attached to the mobile unit which is required to cover each village in the block once a week. An additional allotment of Rs.20,000 has been made to the mobile units for drugs.

3. (At the next level below the PHC,) (there are) 3377 (sub-centres) or an average of 9 per PHC. On an average, (each sub centre at present covers a population of about 13,100 and an area of about 40 square kilometres.) If the effective coverage of a sub-centre is taken as a population of 5000, the sub-centre network will provide a coverage of about

38 per cent for the district population at present. The main function of the sub-centres is to provide maternity and child health services. (Each sub-centre is staffed by an auxiliary nurse-midwife (ANM) who concentrates on maternal care and deliveries.)

4. (The government net-work in Tamilnadu is supplemented by government-aided mini health centres run by voluntary organisations. In general, each mini HC covers a population of 5000. The mini HCs have an annual budget of Rs.18,000 of which 50 per cent is met by government. According to the standard pattern, each mini HC has one part-time medical officer, a male and a female health worker, and lay first aiders or community health workers at the village level. Upto the end of 1981, 214 mini HCs have been sanctioned of which 181 were functioning. In terms of the population covered by them mini HCs account for 2 per cent of the population in the districts. The mini HCs in Tamilnadu are concentrated in Madurai (53), Kanyakumari (52), Chengalpattu (32) and N.Arcot (16), with these four districts accounting for 153 or 85 per cent of the total number of 181 mini HCs in the State.)

5. Government's plans for the future at the PHC level would appear to consist of (i) opening additional PHCs. 80 new PHCs are proposed to be opened during the Sixth Plan (1980-85) (ii) upgrading selected PHCs into 20 bed hospitals. One PHC in each district is proposed to be upgraded in 1981-82 (iii) extension of the mobile medical team to more PHCs. 25 additional mobile teams have been sanctioned in 1981-82.)

6. At the sub-centre level, the long-term objective is to extend facilities to the 5000 population level. A beginning has been made in this direction in the Multi-purpose Health Workers scheme under which a male and a female HW are to be posted at the 5000 population level. The scheme has been taken up in the first phase in the districts of Chengalpattu,

✓ S. Arcot, Madurai, Kanniyakumari and Salem. Under the health component of the World-Bank assisted Tamilnadu Nutrition Project, construction and equipment, training facilities, vehicles etc., are to be provided for 1600 sub-centres at the 5000 population level in the 6 districts of Madurai, Ramanathapuram, Tirunelveli, Pudukkottai, Chengalpattu and N.Arcot.<sup>2/</sup> This project also provides for a Community Nutrition Worker (CNW) at the village level. In addition to her main functions which relate to nutrition, the CNW will also discharge certain health functions such as ante-natal care for expectant mothers, diarrhoea management, organisation of immunisations and health care for pre-school children. 9000 CNWs are to be employed during the project period of 5 years in these 6 districts. Under the DANIDA scheme assisted by the Danish government, maternity and child health services are to be established or strengthened at the 5000 population level in S.Arcot and Salem.<sup>3/</sup> The DANIDA scheme however does not have the counterpart of the CNW at the village level.

✓ X. Altogether, in the Sixth Plan period (1980-85), 2343 additional sub-centres are proposed to be added to 3294 at the beginning of the Plan reaching a total of 5637 in 1985.<sup>4/</sup> The population in the districts in Tamilnadu in 1985 can be estimated to be 48.1 million. On the basis of 5637 sub-centres, the average coverage per sub-centre will be about 8500 population at the end of the Plan. Alternatively, assuming an effective coverage of 5000 per sub-centre, 5637 sub-centres will cover a population of 28.19 million or 58.5 per cent of the population in 1985.

g. The core of the facilities being sought to be provided through sub-centres consists of (i) maternal services viz., ante natal care, assisted deliveries, post natal care and family planning (ii) immunisation of children under age 2 against diphtheria, tetanus, pertussis (whooping cough), tuberculosis and typhoid and (iii) school health services for children in the age group 6-11.

9. Some available facts about the coverage under these programmes will be of interest:

(i) The sample survey conducted under the Sample Registration Scheme 1978 showed that 60.6 of deliveries in rural Tamilnadu were at home and unassisted by trained personnel. 14.7 per cent were domiciliary but assisted by trained midwives and 24.7 per cent were in institutions.

(ii) Figures are available in regard to (a) immunisation of infants and pre-school children against DPT (Diphtheria, Pertussis, Tetanus) (b) immunisation of expectant mothers against tetanus (c) prophylaxis against nutritional anaemia among mothers and children and (d) prophylaxis against blindness in children caused by vitamin A deficiency from 1970-71 to 1975-76. Table 15 gives these figures. It also estimates the coverage under each programme. It will be seen that under DPT, the coverage is around 27 per cent of new births. Figures available for 1977-78 to 1980-81 for DPT immunisation also indicate the same level of coverage. There are obviously variations among districts: the DANIDA report, for instance, estimates the coverage in Salem at 22.7 per cent and in S.Arcot at 12.5 per cent. In immunisation of mothers against tetanus toxoid, it is as low as 5.5 per cent.

(iii) In Madras City, the immunisation coverage is very low. In 1978-79, DPT immunisation covered only about 7 per cent (primary) and 7.5 per cent (booster). Tetanus-toxoid immunisation for mothers covered only 1 per cent. Nutritional supplements to mothers covered 20 per cent. Vitamin A solution to children covered 2 per cent.<sup>5/</sup>

(iv) The special school health services programme is in operation in 103 blocks where the annual target is to cover 2000 children. In other blocks, the annual target is 1000 children. The estimated number of children in the age group 6-11 is 15,000 per block. The coverage can not therefore be considered adequate; in any case, the programme is confined to children in this age group who are enrolled in, and attend schools.



10. A number of deficiencies in the working of the primary health care system in Tamilnadu have come to light. They include (i) a high proportion of vacancies in the sanctioned strength, particularly of doctors and pharmacists (ii) frequent transfers of personnel (iii) multiplicity of Directorates to which the PHC doctors and staff are accountable (iv) heavy load of scriptory work on the professionals (v) shortages in buildings for PHCs and sub-centres<sup>6/</sup> (vi) under-utilisation of beds in PHCs<sup>7/</sup> (vii) shortages and discontinuities in the supply of drugs and (viii) shortages and frequent breakdowns in the case of vehicles.)

11. In addition to these shortcomings of an administrative nature, a further set of problems arise from the preoccupation of doctors with private practice. It results in (a) neglect of their public duties (b) absenteeism (c) slack supervision of subordinate staff and (d) corruption.

#### NOTES

- 1/ Information collected from Government of Tamilnadu Demand for Public Health Grants 1981-82 and Performance Budget 1981-82 Public Health and Preventive Medicine, and Primary Health Centres.
- 2/ World Bank Staff Appraisal of a Nutrition Project in Tamilnadu March 1980.
- 3/ DANIDA Strengthening Health Care and Family Welfare in two districts in Tamilnadu, October 1980.
- 4/ Tamilnadu State Planning Commission Sixth Five Year Plan (1980-85) A Summary Madras 1981.
- 5/ Madras Metropolitan Development Authority Structure Plan for Madras Metropolitan Area Volume 1 : Existing Situation, June 1980.
- 6/ As at the beginning of 1981-82, dispensary buildings were short in 75, or 20 per cent of the PHCs and staff quarters in 145, or 38 per cent of the PHCs. At the sub-centre level, deficiencies in terms of the existing level of coverage are not known. In addition to meeting these deficiencies, buildings will have to be put up for about 6000 additional sub-centres including staff quarters to reach the proposed target of one sub-centre for 5000 population.
- 7/ The bed occupancy was reported to be less than one per day in S.Arcot and Salem, Vide DANIDA op. cit.

Table 15 Performance under principal maternal and child health schemes

Scheme	Average annual beneficiaries 1970-71 to 1975-76	Estimated coverage
1. Immunisation of infants and pre-school children against DPT	3,07,431	26.7 <sup>a/</sup>
2. Immunisation of expectant mothers against tetanus	62,939	5.5 <sup>a/</sup>
3. Prophylaxis against nutritional anaemia in children	2,95,821	16.4 <sup>b/</sup>
4. Prophylaxis against Nutritional anaemia in mothers	4,26,932	37.0 <sup>a/</sup>
5. Prophylaxis against blindness in children caused by Vitamin A deficiency	3,81,808	21.2 <sup>b/</sup>

<sup>a/</sup> As proportion of live births

<sup>b/</sup> As proportion of 0-2 age group

Source: Government of Tamilnadu Hand Book of Medical Statistics 1979.

## V. Some Policy Issues

We have seen that starting from the Report of the Bhoré Committee in 1946 and extending up to the 'Health for All' Report of the ICSSR-ICMR Study Group in 1980, the basic thrust of recommendations on health policy has consisted in emphasising:

(a) a net work of adequate and dispersed hospital facilities that will systematically reach out to hitherto neglected rural areas;

(b) the provision of facilities through PHCs and sub-centres for (i) the diagnosis and cure of simple ailments with complicated cases being referred to the secondary level (ii) maternal services viz., antenatal and post-natal care, assisted deliveries and family planning and (iii) the control of child morbidity and mortality through immunization and school health services;

(c) Preventive health programmes on similar lines in urban areas;

(d) specific programmes for the control of communicable diseases; and

(e) improvements to environmental hygiene.

2. The review of the health situation in Tamilnadu in the fore-going chapters is not a comprehensive one. Even within its self-limited scope, it has been constrained by the lack of data and published information. However, enough facts have been brought out to show that Tamilnadu has a long way to go in meeting the oft-repeated objectives of health policy of the last three decades.

3. In this context, it is necessary to move in the right direction and to move faster, if 'Health for All' (or any

other rallying cry) by the year 2000 (or at any other foreseeable date) is not to remain a slogan. It is only the government that is in a position to formulate detailed plans, allocate needed resources, and implement a time-bound programme of action to improve the health status of Tamilnadu. These tasks cannot be systematically approached unless there is clarity on the major policy issues. Some of the main issues of policy, and of planning and implementation, that follow from our review of the health situation in Tamilnadu are the following.)

### Resources

✓. It is necessary to increase the size of the health budget and to devote a very substantial proportion of the incremental expenditure to preventive and curative facilities in the rural areas. Prima facie, and especially in the context of the removal of Prohibition, it does not seem infeasible to accept the target of a 20 per cent annual increase to the health budget. At current levels, this will mean an annual increment of the order of Rs.20 crores. Even if 75 per cent of this amount is devoted to primary health and related secondary facilities, it will result in an annual increase of around 50 per cent to the resources currently being spent at these levels which is of the order of Rs.30 crores. If achieved, this can amount to a significant rate of growth in resources available for primary health care.

5. Health is an area where financial contribution at the local level could be directly related to benefits for the local population. Mobilisation of local resources would, however, be possible only under a decentralised and participatory framework of health care. The government faces the prospect of having to incur considerable capital expenditures on buildings for (a) meeting existing shortages at the PHC and sub-centre levels and (b) extending the sub-centre net

work to 5000 of population. In this context, the scope for meeting a good part of such expenditures from local contributions in cash and kind should be explored. Recurring resources can also be raised at the local level in part through payments for services, in part through Panchayat Union and Panchayat taxation, and in some cases, particularly in urban areas, through appropriate health insurance schemes.

#### Planning of hospital facilities at secondary level

6. The analysis of existing levels, and the gross imbalances in the population-bed ratio (a) as between Madras City and the districts (b) inter-se between districts (c) between district headquarter towns and other parts of districts, and (d) between urban and rural locations in districts shows that, over the years, the expansion of hospital facilities in Tamilnadu has been both meagre and unplanned. What is of crucial importance is to ensure that existing facilities created at considerable cost are fully utilised, and new facilities are created at locations where they will be fully utilised. Definite priorities will have to be evolved for the future on the basis of detailed planning, and priorities once arrived at, rigorously adhered to. On the basis of coverage and utilisation statistics, existence of communication facilities etc., it should be possible to arrive at a spatial plan for the upgrading of existing taluk and non-taluk hospitals and for the location of new hospitals at the secondary level with adequate bed strength, equipment and specialities. A balance will have to be struck, during expansion, between economic unit size and the requirement for dispersal. Considering that the present average bed strength in taluk/non-taluk hospitals is around 50, it may be reasonable, in the first instance, to upgrade some of them into 100 bed hospitals and to open new hospitals with 50 or 100 beds as may be appropriate. In implementing such a plan, priority will have to be given to districts and sub-district areas which have a high population-bed ratio.

Tamilnadu has a number of towns with populations of 10,000 and above well distributed among the districts. This infrastructure is a great natural advantage for a rational and equitable planning of hospital facilities. In the absence of such detailed planning, it does not seem optimal to convert a few selected PHCs into 20 bedded hospitals or to open an additional PHC in a few blocks on the basis of ad hoc decisions.

7. The referral system between the primary and secondary levels has to be institutionalised. A system of zoning and linking PHCs to hospitals at the secondary level (including where appropriate recognised private hospitals) is necessary along with the provision of ambulance and telephone facilities in good working order.

#### The Village Base

8. The decision in Tamilnadu to do without village-level community health workers (CHWs) requires serious reconsideration. In several projects, all over India, the need for a first level worker of this type, chosen from within the village, enjoying the confidence of the village community and in close daily contact with them has been amply demonstrated. An anchoring at the village level is a sine qua non for the entire gamut of primary health services - maternal services, immunization for mothers and children, other child health services, health education, distribution of drugs for simple ailments, the spotting of complicated cases for referral, post-referral follow-up and so on. The rest of whatever delivery system is implemented will be doomed to ineffectiveness unless it is rooted in the village.

9. Besides, in the World Bank assisted Tamil Nadu Nutrition Project which covers 6 districts, with a total population that is 46 per cent of the overall district population in the State, it is proposed to have village-level community nutrition workers who also have certain basic health functions

attached to them. It would be unwise to think of retrenching this large cadre of 9000 CNWs at the end of the 5 year project period, especially since at the end of this period they would have gained experience and motivation; nor, does it appear that it would be feasible to create such a large measure of dis-employment. A large beginning having been made in this project, the sensible course of action would be to retain the CNWs at the end of the project period as CHWs and to decide to have CHWs in other districts as well.

10. The supervision of an eventual number of about 16,000 village-level CHWs through normal bureaucratic means will be an impossibility and should not be attempted. The entire rationale of having a CHW is that the health worker at the village level should be first and foremost accountable to the village community and enjoy its confidence and cooperation. This can be ensured only if the CHW is squarely placed under the guidance, supervision, and control of the Panchayat. This view has been very strongly endorsed in the Health for All report.

11. A large scale and systematically planned programme for the training of dais is called for in order to improve the proportion of assisted deliveries. Trained dais have also been found to be one useful source for the recruitment of CHWs.

12. School teachers provide another important source of front-line workers. Their value in being able to impart instruction on health and hygiene to school children is obvious but it will have to be supported through training and the provision of teaching aids. In Tamilnadu, a pioneering effort has been made to use school teachers for leprosy detection. The scope for expanding this scheme should be explored.

13. We have seen that over 70 per cent of doctors in rural areas are practitioners of indigenous medicine. They are close to the community and can be utilised in the primary health care net work, principally by training them to identify and report on the incidence of diseases which need specialised allopathic treatment. The use of inexpensive, locally available herb medicines, particularly for skin diseases and jaundice could be promoted.

#### Health Education

14. Health education has high priority in any concept of participatory preventive health care. Apart from the use of CHWs, MPWs and teachers, there is much unexploited scope for the use of posters, hoardings, the radio and other media. One may recall the following recommendation of the Bhole Committee in this connection: "The organisation of health propaganda is a highly specialised task and it should therefore be entrusted to persons capable of producing results. The methods of propaganda which commercial organisations have employed with great success should be studied and adopted, as far as practicable, in the development of health education campaign".

#### Village Sanitation

15. While village water supply has received attention and resources for many years, hardly a beginning has been made to promote village sanitation. Panchayats should be activated in this matter and given necessary technical and financial support by government.

#### Mobile and Stationary

16. The mobile medical team has been envisaged in Tamilnadu as an alternative to the CHW pattern. Obviously, it is not and cannot be, an effective or economic alternative. At the



same time, the reach of the PHC being necessarily limited, the need for out-reach facilities through mobile teams is apparent. The inter-face between stationary and mobile arrangements will have to be carefully thought out. The attempt to reach every village every week is expensive, has a high propensity to breakdowns, and spares too little time at each place. If a CHW is available at the village level, it may be sufficient for the mobile team to confine itself to the 5000 population sub-centre level. Using the CHW, the multi-purpose workers at the sub-centre level and the mobile teams, it should be possible to achieve a much higher coverage in the immunization programme both through normal means and through special camps and cluster campaigns.

### Doctors

17. The effective functioning of PHCs and of hospitals in rural areas has been consistently hampered by the large number of vacancies in sanctioned posts of doctors, high turn-over due to frequent transfers, and the preoccupation of government doctors with their private practice to the detriment of official responsibilities. On an all-India basis, the 'Health for All' group have pointed out that the estimated existing stock of 2,20,000 doctors in the country with annual additions of the order of 13,000 would more than suffice for implementing the expansion they have envisaged for the year 2000, and that in the aggregate, over-rather than under-production of doctors is the country's problem. In Tamilnadu, as in all-India, the public sector absorbs only about a third of available doctors. There is also an increasing trend in the numbers of doctors seeking public employment. The real problem is, therefore, to enlarge the recruitment of doctors to public service and enforce arrangements whereby they are posted to, and retained for reasonable spells in, PHCs and rural hospitals. If there is the will to do so, it is hard to believe that suitable ways cannot be found. The Shrivastav Committee, for instance, has

recommended that every doctor in the public service should be made to spend a period of not less than two consecutive years at a PHC between the 5th and 15th year of his career.

18. The Central Government and many of the State governments have banned private practice. It is acknowledged experience that private practice leads to neglect of duty and to corruption. The banning of private practice is a reform which is overdue in Tamilnadu. Needless to add, the strict enforcement of such a ban will also be essential.

### Voluntary Agencies

19. Tamilnadu has had a strong tradition of voluntary non-governmental organisations working in the field of health and government has followed an enlightened policy of utilising them through the mini HC scheme. However mini HCs are few in number and concentrated in a few districts. The case for encouraging voluntary agencies is that they are able to achieve favourable benefit-cost ratios as well as a high degree of motivation in their health care projects, confined though they may be to a few pockets. The most important aspect of voluntary effort is that it provides a set of action-research models for community health care. These models could provide a seed-bed, as it were, for wider transplantation in a Panchayat-based community health system, if such a system could be created. A fruitful interaction between the government and voluntary agencies needs to be promoted over time. In particular, there is need for coordination and constructive cooperation in blocks where voluntary agencies are operating alongside the governmental system.

### Urban Areas

20. We have drawn attention to the very low level of immunization coverage in Madras City. Tamilnadu has a relatively high urban population. The urban poor live in highly congested

and insanitary surroundings and are particularly vulnerable to water borne and fecally communicated diseases. In densely populated urban areas, there is a good scope for implementing cost-effective preventive and promotive health care measures. This scope has hardly been exploited. A strong programme for primary health care, and improvements to environmental hygiene in urban areas organised through local bodies should be given high priority.

### Social Security

21. Social security for the poor in old age ought to be an essential element of health policy. The bulk of our population are employed in the unorganised sector, mainly in agriculture. With no savings of their own, or State aid in old age, most of them are condemned to destitution. Old age pensions in Tamilnadu are generally available only after 65 years of age and cover only about 6 per cent of that age group. There is a strong case for extending the scheme to those above 60 years of age in rural areas and for liberalising the provisions so as to cover a much larger target group. In particular, landless agricultural labourers and rural artisans should be fully covered. An expanded scheme of social security will not only improve <sup>the</sup> expectation of life but also provide a strong incentive for family planning.

### Administrative Streamlining

22. One cannot fail to refer to the fragmentation of administrative control over inter-related aspects of medical and health care in Tamilnadu. The Public Health department was formed in 1923. In 1966, it was integrated with the Department of Medical Services into a unified Directorate of Health Services and Family Welfare. In 1976, the Directorate was split between a Directorate of Public Health and Preventive Medicine (DPH) and a Directorate of Medical Services and

Family Welfare (DMS). In 1979, a separate Directorate of Primary Health Centres was carved out from the former. Apart from these three Directorates, there are two others for Medical Education and for indigenous Medicine. At the field level, hospitals and family welfare are under the DMS; preventive services, supply of drugs and deployment of vehicles under the DPH; primary, health centres under its separate Directorate; and indigenous medicine under yet another. There is a clear prima facie case for the simplification and streamlining of the administrative structure aimed at a closer integration of promotional, preventive and curative services.

### Conclusion

23. We began with the rather modest working hypothesis that something could be done to bring health to more, and to more of the poor, while 'health for all' may not be achieved in the absence of far-reaching changes in our economic and social structure. We also saw that in respect of health, Tamilnadu is a mediocre State in a backward country. It is necessary, and should be possible, to improve the health status of Tamilnadu. It is in this context that we have tried to outline the kind of changes needed to achieve more rapid and equitable progress in this sector.

24. One set of the reforms necessary consist of increased resources, detailed planning, rigorous priorities, administrative streamlining and better management. Along with these, two major reforms, which will more directly test the political will of the government, are also necessary. The first of these is the social use of doctors, in the production of each one of whom a considerable social investment is involved. More doctors have to be recruited to the public sector, more made to serve in rural areas, and their undivided attention ensured to the public clientele.] Another is the simple recognition of the fact that health cannot be brought

to the people unless and until the people are also "brought to health". Neither will be possible without locating a genuine 'Community' health worker in each village under the guidance, supervision and control of Panchayats and Panchayat Unions. Given such a decentralised and participatory framework, it will become possible in a period of years to mobilise local resources - finance, manpower and materials - not only for primary health care but also for nutrition which ought to be an integral element in it, with malnutrition being so much at the root of maternal and child morbidity and mortality. The point about bureaucratically designed nutrition delivery projects, such as the World Bank assisted project being implemented in Tamilnadu, is the very high overall cost and within it, the large proportion that goes into overheads. The annual recurring cost of the programme, including overheads, is, at current costs, Rs.23.7 per village child aged 6 to 36 months and Rs.30 for each pregnant lactating mother. Projects such as these may have a good "show-case" effect while they last, and provide useful research material for aid-givers and nutritionists. But, they cannot be universalised, or sustained in the long term, in view of the heavy demand they make on scarce financial and administrative resources. Less expensive ways to "deliver" nutrition will have to be found. This again implies that active community participation and local contributions need to be widely mobilised to have any major advance in integrated health and nutrition.

25. In conclusion, one might touch upon the nature of the politics of health. On the demand side, health is insufficiently politicised. Curative facilities are to some extent a felt priority among people but there is little grass roots demand for preventive care or much awareness of its importance. By the same token, some political dividends are to be obtained from the establishment of curative facilities but preventive health care is not on the top of the agenda of the populist politician. However, health is highly politicised on its

supply side. The medical lobby and urban interests converge in wanting to concentrate hospitals in urban areas, in adding expensive equipment and sophisticated specialities to them, and in permitting private practice to doctors. Because of the nature of their profession, doctors enjoy (and exploit) access to decision-makers at the political level and in the higher bureaucracy. In these circumstances, a strong counter lobby needs to be created at a political level in favour of preventive and curative facilities in rural areas. While this will not be an easy task, a good first step in that direction can be taken if Panchayats and Panchayat Unions are squarely given the responsibility for community health at the village and block levels.

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Annexure

## DECLARATION OF ALMA-ATA

The International Conference on Primary Health Care, meeting in Alma-Ata this twelfth day of September in the year Nineteen hundred and seventy-eight, expressing the need for urgent action by all governments, all health and development workers, and the world community to protect and promote the health of all the people of the world, hereby makes the following Declaration:

## I

The Conference strongly reaffirms that health, which is a state of complete physical, mental and social well-being, and not merely the absence of disease or infirmity, is a fundamental human right and that the attainment of the highest possible level of health is a most important world-wide social goal whose realization requires the action of many other social and economic sectors in addition to the health sector.

## II

The existing gross inequality in the health status of the people particularly between developed and developing countries as well as within countries is politically, socially and economically unacceptable and is, therefore, of common concern to all countries.