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**Public Spending and Outcome of Social Services in India:  
A Review during the Regime of Policy Reforms**

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**Abstract**

*The objective of this paper is to study the changes in public expenditures on social sector, as a result of the structural adjustment programme, that might have an impact on the sector's outcome. Therefore, an effort is made to assess the relationship between per capita public expenditure and the outcome across major states. The findings suggest that, in terms of most of the indicators under study, association between per capita expenditure and the change in outcome in social sector is weak, more so in case of education than in health.*

**JEL Classification No.: I12, I18, I22, I28 and I31**

**Keywords:** Policy Reforms; Public Spending; Social Services

This paper is an outcome of the study, "Economic and Policy Reforms in India", sponsored by the Asian Development Bank, Manila. An earlier version of this paper was presented in the ADB-NCAER International Workshop on Economic and Policy Reforms in India at the India International Centre, December 9-10, 1999, New Delhi. The authors thank Shalabh Kumar Singh for his help in restructuring the paper.

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September 2000

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*Published by*

**P.K. Krishnaswamy, Registrar & Secretary  
National Council of Applied Economic Research  
Parisila Bhawan, 11 - Indraprastha Estate  
New Delhi - 110 002**

*Printed at*

**Vandana Print & Co.  
1885, Sri Walan, Darya Ganj, New Delhi - 110 002.  
Tel.: 3262747**

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## **I. Introduction**

The objective of this paper is to study the performance of social sector, particularly during the structural adjustment programme. For the purpose, an effort is made to evaluate the public expenditure patterns and assess the capacity of the sector to respond to reforms in terms of the relationship between per capita public expenditure and the outcome. The major thrust of investigation is to find as to what leads the sector to perform better in some states than in others. The sector has been defined to include basic needs like education, health and social security. In India, like in any other country, the pursued social sector policy depended on the approach to development adopted in the overall economic planning. The problems faced by the social sector over the years to produce required outcome under a particular approach to development across countries, therefore, need to be summarised to suggest remedies for the sector's development in India.

The performance of the basic needs policy has been evaluated in many countries on the basis of the questions of distribution of income and wealth, and the government policy towards the provision and distribution of basic services. A common finding of this evaluation is that the policy to satisfy basic needs of the majority should be pursued simultaneously with policies for generating and distributing employment and income among the population, and distributing national income between capital formation and basic needs consumption. Moreover, effectiveness of such policies depends on many a national and international factors like trade barriers, tariff systems, inflation, location of target groups, etc. It has been suggested that this approach be followed keeping in view the objective of sustained long run economic growth. If objectives in income distribution and meeting basic needs are pursued rationally, economic growth need not necessarily be sacrificed. The trade-off between growth and basic needs, if any, may be minimised by the productive use of the skilled manpower made possible by the fulfilment of basic needs and minimisation of wasteful expenditure.

The developing countries invariably followed the policy of public provision of basic services due to the obvious reason of lower levels of their human development and so the public expenditure policy of these countries formed a major component of the social sector management. Thus, impact of stabilisation and structural adjustment programmes (SSAP) on the social sector can be sufficiently visualised in the changes that these measures have brought about

in the public expenditures and the patterns thereof on health, education and social security. But, the impact can be known from the levels of efficiency of such expenditures before and during the reforms. For instance, higher efficiency can convert lesser expenditures into comparatively more and better quality outcomes. This is to evaluate as to how far these programmes have affected the condition of the poor. The existing literature documents adjustment programmes in countries as having both undesirable and positive consequences for their social sectors and hence for the poor. The ground for the adverse impact is that during adjustment, government expenditures on health, education and other safety nets are reduced along with services. However, some countries have also been successful in achieving growth with adjustment and without compromising on the health and education needs of their people. For instance, the East-Asian countries achieved higher levels of human development even with an agenda of adjustment. But, what is particularly instructive about the experience of these countries is the broad base of human capital they had created prior to launching their market-based economic growth process. This, it is argued, helped them in absorbing new technology with smaller investment in upgrading labour skills (World Bank, 1993). Therefore, it is necessary that public expenditure policies with respect to the social sectors of health and education be reviewed. Such a review may help explain the variance in adjustment results across regions.

Irrespective of the strategies adopted to achieve higher growth (depending on the economic, regional and political set-up of a society), it is an undisputed fact that the single most important objective of growth is welfare of the majority population. This was at the centre of discussion in India when the government introduced the stabilisation and structural adjustment measures in 1991. The doubts and scepticism expressed could not be easily dismissed, considering the eventful experience of the Latin American countries. Moreover, the levels of social sector outlays in India were not only lower, their growth rates had also been slower in comparison to some of the developing countries.

However, during the initial years of the reform programme, these outlays were cut. The level of expenditure (1980-81 prices) for both education and health declined for 1991-92, while the fall in the same for social security was recorded in 1993-94. The fall in social sector expenditures in India seems to stem from the problems of state governments, as the transfers from Centre to the States declined during the period. The share of development expenditure in the total expenditures of the states fell from 69.5% in 1990-91 to an estimated level of 65.1% in

1994-95 (Tilak, 1996). Similarly, the comparative growth rates of expenditure on education, health and social security across pre- and the reform periods reveal the fact that mostly the education sector was adversely affected in the later period. In the light of the above scenario, the present paper makes an effort to assess the impact of public expenditure on the outcomes in education and health.

The scheme of rest of the paper is as follows. Section II presents the policy changes effected in India since 1991 and the resultant changes in public expenditure patterns in the light of the international experience. Section III attempts to explore the relationship between per capita public expenditure and outcomes across major states, separately in education and health. The final section concludes the paper.

## **II. Reforms and Public Spending on Social Sector**

Adjustment experiences in several parts of the world have raised concern that social sector expenditures are vulnerable to cuts during periods of financial constraint. Reduction in government expenditure seems to have fallen disproportionately on social sector spending which is related directly to the welfare of the poor. These declines have been more severe in Latin America than in Asia (Pinstrup-Andersen *et al.*, 1989; Sahn, 1987; Pinstrup-Andersen, Jaramillo and Stewart, 1987). One of the strongest criticisms against the adjustment process has been that it has negative repercussion on the living conditions of the vulnerable section of the population. This is based on the premise that stabilisation measures usually necessitate reduced social sector spending which gets translated into reduced services and a resultant deterioration in the living standards of the poor. However, study of the public expenditure patterns and their outcomes across regions, and at times even within regions, has shown vastly differing results.

A comparison of the levels of public expenditure on education, health and other social services and the distributional aspects of the performance of 55 adjusting and 31 non-adjusting countries during 1980-87 contends that the effect of adjustment would depend on the initial conditions in a country (Khan, 1993). The countries that implemented adjustment programmes under the World Bank's Structural Adjustment Loan facility include, among others, Ghana, Burkina Faso, Kenya, Malawi, Philippines, Thailand, Pakistan, Bolivia, Brazil, Chile and Costa Rica and some of the non-adjusting countries are Botswana, Ethiopia, Sri Lanka, Peru and Paraguay. Table 1 suggests that 27 of the 55 adjusting and 16 of the 31 non-adjusting countries

experienced negative rates of growth in per capita GDP between 1980 and 1989. As a result, from the period 1971-79 to 1980-87, the rank in terms of the growth rate of per capita private consumption slightly improved and declined respectively for the adjusting and non-adjusting countries. Besides, during 1980-86, as a percentage of total public expenditure, expenditure on education, health and social services as a whole declined for 11 adjusting countries while this share increased for the 12 non-adjusting countries. Moreover, during 1980-86, per capita expenditure on education, health and social services in Purchasing Power Parity US dollars increased by 51% for the non-adjusting countries, whereas it remained nearly unchanged for the adjusting ones. But, what is interesting is that despite this massive increase they did not reach the levels of expenditure attained by the adjusting ones. So far as the performance is concerned, adjusting countries have done almost as well or slightly better than non-adjusting ones with respect to primary school enrolment and infant mortality rates. However, the average undernourishment rate is considerably higher among the adjusting countries.

The existing literature thus brings out the fact that differing economic structures and performances prior to adjustment can result in disparate outcomes, social and otherwise, for reform programmes, expenditure levels notwithstanding. Despite the fact that investments in infrastructure, health and education yield high social returns, public expenditures on these sectors have faced reductions in some countries during adjustment. They also observed that in these cases stabilisation not only led to reduced budgets but also resulted in smaller shares of social sector in total government spending. However, the problem seems to be not so much of reduction or misallocation of resources across sectors of the economy but one of misallocation within sectors and of the inefficiency of their use. A look at the intra-sectoral allocations in education and health shows that secondary and higher education and curative health care have been favoured in most of the Sub-Saharan countries at the cost of primary education and basic health care (Sahn, 1992). As a result, hospital-based health care and secondary and higher education received far more subsidies than did primary education and primary health care. Primary education received only 43.7% of recurrent government expenditure on education in Africa. In only 7 countries, did the percentage exceed fifty. Similarly, a majority of the countries allocated a substantial portion of their health budgets (Malawi allocating 6.8% of 1987-88, Madagascar 27% of 1987 health budget) to hospital-based care, despite public health generating greater benefits in the long run. However, data for Sub-Saharan Africa, during the period of its economic reforms, show no across-the-board declines in real government expenditures.

Spending increased for most countries despite having adjustment loans with measures of austerity.

Nonetheless, stabilisation and adjustment induced cuts in government spending on health and education, wherever effected, have not necessarily engendered undesirable social outcomes. Taylor (1993) observed that countries affected by shocks adjusted in significantly different ways based on conditions not only external to them but also were an integral part of their systems such as institutions, macroeconomic structures and their socio-economic environments (Bourguignon and Morrisson, 1992; Sahn, 1987). Therefore, outcomes, including those with respect to expenditure changes (not necessarily cuts), were bound to differ. Moreover, the level of public spending has not always been related to development. Some of the least developed countries today spend as much, if not more, a share of their GDP and national budgets on social services as the industrialised countries (United Nations, 1996). Even the country studies, documenting decreased expenditures on health and education, exhibit cases where the negative impact of the cuts has at best been marginal. Indonesia and Malaysia, for instance, increased social expenditures on both health and education during the course of their adjustment programmes. Besides, cuts in public expenditure in the later years of its reform programme had only a negligible impact on health and education in Indonesia. As a result, the country achieved the twin objective of improving income distribution and reducing the incidence of poverty.

In India, public policy on social services was affected as a result of the structural adjustment programme, which manifests changes in public expenditure patterns. Besides, need for raising internal resources by suitably revising fee and other user charges along with mobilising non-government resources was proposed as reforms in the social sector. Moreover, many new schemes were introduced (Table 2) and some of the existing ones had been revamped (Table 3) in this sector. In this context, an effort may be made here to analyse the aggregate (combined spending of Centre, State and Union Territory Governments) social sector public expenditures. The growth rates of public expenditure spent on education, health and social security are estimated for the pre- and the reform years to observe the emphasis laid by the government on social sector. To assess the vulnerability of social sector expenditures, shares of education, health and social security in total public spending and in GDP are analysed. Besides, intra-sectoral allocation of budgetary outlays to education has been analysed to assess the restructuring of expenditures across sub-sectors. The public

expenditures are supposed to reflect the policy priorities of the government towards service provisions in the sector which, in turn, will reveal the actual realisation of its performance. The following is an analysis of the public expenditures on education, health and social security towards looking at this impact.

The public expenditure patterns of India in the last decade show a haphazard trend, rising sharply in the first quarter followed by a gradual decline towards the end. Attributable to the economic crisis, which was characterised by rising inflation, high fiscal deficits and depleting foreign exchange reserves, India embarked on the SSAP in 1991. The stabilisation measures that constituted the initial phase of reforms necessitated adherence to stringent fiscal discipline. This resulted in a re-examination of the public expenditure patterns and with international evidence against the same, there arose serious apprehensions regarding the likely impact of the SSAP on the vulnerable section of our population. Of course, efforts of the government towards increasing expenditure on social sector can be observed from the growth rates of expenditure on education, health and social security. As can be seen from Tables 4 and 5, social sector expenditure in India shows a decline in growth rate to 5.0% in the reform period from a high of 10.0% in 1989. In case of education, a sharp fall in expenditure is noticeable during the reform period, whereas health and social security experienced increase in growth rates. But, social sector outlays in India at levels witnessed a reduction only in the initial year of the reform programme. The level of expenditure (1980-81 prices) for both education and health declined for 1991-92, while for social security the fall was recorded in 1993-94. A notable rise can be seen in the case of social security where the government has intensified its efforts in protecting the vulnerable section of the people. This is reflected in the annual growth rate of expenditure on social security to 26.2% in 1995-96.

A sectoral analysis of the growth rates across education, health and social security reveals the education sector to be the most affected. This sub-sector has been facing pressures of severe resource crunch even before the reforms. This dismal situation can be attributed to the lack of commitment on the part of the state governments. For instance, the compound growth rates of the public expenditure of the states on social sector clearly show a decline in the reform period as compared to the pre-reform period from 7.21% to 4.51%. A look at the components of the social sector at the state level shows that only education sector was vulnerable to expenditure cuts with its growth rates falling from 9.39% in the pre-reform

period to 3.91% during the reform period. In health and social security, however, there are no indications of vulnerability even in the states. Thus, a disaggregated analysis of the expenditure shows concerted efforts by the Central Government to increase expenditures on the social sector, especially on health and social security. However, these efforts of the Centre have unfortunately not been matched by the states. As far as health is concerned, the intra-sectoral imbalances in resource allocation, a fallout of World Bank recommendations first in 1992 and subsequently in 1993, have been blamed with the Bank laying greater emphasis on the issues of family planning than those of public health. The outlays on communicable diseases that are more prevalent among the poor and for disease control programmes have either been reduced or have remained more or less stagnant. In general, recommendations argued for cuts in government spending on health services, opening up of medical care to the private sector and the introduction of cost recovery mechanisms in public hospitals.

While analysing the shares of expenditure on the components of social sector in total public spending in India, one finds a quite erratic picture, except in case of health from 1993-94 onwards and social security up to 1989-90 where respectively positive and negative trends are observed (Table 6). The shares of education during the whole period (1985-86 to 1997-98) and that of health (1992-93 and before) and social security (after 1990-91) record a fall for a year or so followed by a rise for a few years. The upward trend in the share of public expenditure on social security reflects possibly a committed effort by the government towards providing safety net measures which is evident from an increase to 3.17% in 1996-97. A comparison of the years during reforms shows that the share of social security in total public expenditure has not been adversely affected but for the year, 1993-94, where a reduction in growth rate was observed from 2.6% to 2.4%. When the share of expenditure on education, health and social security in total public expenditure is viewed in combination, the trend looks haphazard, of course with an upward movement during the latest years of reform. An overview of this share during the reform period clearly shows that the marginal reduction in the share of education, health and social security for the first two years of reforms was replaced in the subsequent years.

As regards the share of expenditure on social sector (viz. education, health, and social security taken together) in GDP (Table 7), it shows a rather inconsistent trend in the pre-reform period, with an increase in one year followed by a decrease in the next year. A more or less consistent decline of the same is observed during the reform period. However, a rise is

seen in the share of social sector in GDP towards the latest years. The share of education and health viewed individually registers a fall during the reform period as compared to the pre-reform period. In case of social security, the trend is quite erratic with a slight increase in the first year, followed by a decline in the next year. The share has however been on the increase from the third year of reforms. Thus, the vulnerability of the social sector during the initial years of the stabilisation phase is visible quite clearly, thereby indicating a lack of emphasis of the government spending on the sector.

In the end, a brief account of the intra-sectoral allocation of resources on education during the pre- and the reform periods may be presented to evaluate the proposed policy of reprioritisation. With a constraint on increasing the expenditure, the right approach could be the optimal use of available resources within a sector. Therefore, the need was to reduce subsidies on higher education, replacing it with schemes like freeships and scholarships for the poor and the meritorious. In response to this realisation, a consistent rise in the share for elementary education is marked during the first and second phases of reforms from 43.8% in 1991-92 to 46.3% in 1994-95 (Table 8). During the same period, considering the resource constraints of the government, a reduction in the share of secondary and higher education was warranted. While in 1989-90 higher education received 12.1% of the total plan expenditure on education, the corresponding share is less than half in 1993-94 and 1994-95 (Tilak, 1996). But as seen from Table 8, although the reduction in the share of university and higher education is consistent, a haphazard trend is observed in case of secondary education.

The findings suggest that the social sector in India suffered, only for a brief spell, as a result of the economic reforms. As is observed, stabilisation measures necessitating a cut in the public expenditure on education, health and social security adversely affected the sector only for one or two years. The shares of expenditure on this sector in total government spending and GDP as well as the growth rates, across pre- and the reform periods, corroborate the same. However, the adjustment measures requiring a restructuring of the expenditures across sub-sectors, within education, have not managed to balance out the so-called adverse impact. On the whole, these negative trends seem to be reducing towards the later years of the study period, although the current levels are lower than that of 1989-90.

### **III. Efficiency of Expenditures in the States**

Today, the major concern of the policy-maker is to find ways and the means to maintain both quantity and quality of the publicly provided services available to an individual due to the clash between an ever-increasing population and a constrained-resource base. This has given rise to discussions concerning looking out for alternative ways of financing or providing social services. The question that has added fuel to such efforts is how far we have been able to fulfill the criterion of efficiency in managing the provision and distribution of these services across various strata of population. Why do public expenditures produce different social sector outcomes in different states in India? If the same volume of finance could produce more and better outcome in one state than others, what are the enabling factors other than expenditure inherent in the state that ensure such results? This section attempts to investigate these questions by comparing per annum per capita public expenditure during the period 1985-86 and 1992-93 with the change in outcome indicators between two points of time separately in education and health across the major states. In other words, the exercise is to study the capacity of the social sector in India to respond to reforms. For instance, the amount of expenditure necessary to bring out a certain change in outcome in a state can be used to assess and compare the impact of reforms on the social sector across states.

But, the expected results may provide only weak relationships between the expenditure and outcome indicators for the reason that although expenditure is definitely a necessary condition for the realisation of outcome, it is not sufficient for ensuring the same. Other factors that complement the expenditures in ensuring better output may be the type of organisation and management of the delivery system of the services. Decentralisation of the management, apart from reducing cost of the service by removing leakage of expenditures, may in fact improve the relationship between providers and the users to a significant extent. This close contact possibly helps to improve the quality of service. Second, political awareness of the people may go a long way in increasing people's participation in the governmental efforts to achieve social development, as was observed in the states of Kerala and West Bengal (Nag, 1983). In these two states, greater degree of participation of the people in local politics helped them gain knowledge about the availability of developmental schemes in the areas of education, health, employment and other safety nets at the block level and benefit from them. Third, selection of specific schemes by the policy-makers for improvement of social sector indicators in education and health may ultimately determine the results by providing incentives for the

people to use the service on the one hand and cost-effective system of delivery on the other (Tamil Nadu).

As is believed, economic liberalisation presupposes a wider base of human capital, if the economy has to benefit the majority population as labour is the only endowment of the poor. The expansion of the market brings with it opportunities for employment, but for the skilled and healthy labour force. This is where the capacity of the social sector to respond to economic reforms becomes important. In a market economy, the role of the government is minimal. But in India where 36% of the population have been living below the poverty line by 1993-94, the role of the government in the creation of human capital gains prominence. Moreover, in a changing environment of liberalisation when vulnerability of the poor to price increases is higher, the disposable income with the masses for spending on education and health becomes less. Herein lies the responsibility of the government to protect this section of the population to absorb these short-term shocks of reforms and to equip them to progress in the long run. This requires the government to maintain the levels of expenditure on human development so that a more purposeful interaction between human capital formation and economic growth can be established.

Moreover, public expenditure is one of the key instruments of state intervention for achieving desired social goals. The strong case in favour of public intervention in allocative and distributive activities is drawn from the limitations of the market mechanism. Market by itself cannot desirably activate the economic agents to achieve allocative efficiency and distributive justice (Rao, 1998). Although greater public spending on primary and secondary education, and primary health care is being advocated by many, several studies have noted that the relationship between public spending for education and measures of educational attainment is weak (Noss, 1991; Landau, 1986). This may be due to the fact that expenditure is not the sole determinant of the outcome. Besides, the current pricing policy of the social services in the developing countries in general and in India in particular is probably to be blamed for these distortions. The missing links are the result of public decision that has made the provision of educational and health services less efficient. The inefficiency manifests in underinvestment in these sectors relative to others, misallocation of resources within each sector, and an inability to ration services according to need (Jimenez, 1987: 2). Also, Gupta, Verhoeven and Tiongson (1999) provide ample evidence to support the proposition that expenditure allocations within

social sectors matter for educational attainment and health status, the evidence being stronger in the case of education. It is thus essential to assess the relative importance of public expenditure in contributing to human development in different states, and to identify the level and direction of relationship between public expenditure and social sector outcomes. The focus is to study the extent to which a state's enviable/pitiable social scenario can be attributed to the commitment of a state in terms of ensuring efficiency of expenditure.

To measure productivity of public expenditure on social services in the conventional way is not possible in totality. In the absence of direct productivity measures, efficiency of the allocative patterns of expenditure has been acceptably used as a proxy (Mundle, 1998). In this study, the approach adopted to assess efficiency of expenditure does not end in merely analysing the sheer levels of the same. Instead, an inter-state comparison of expenditure *vis-a-vis* the resultant outcome in education and health has been attempted to attain the same. As components of the social sector are to be maintained by the states, appropriate expenditure policy at the state level is essential. Keeping this in view, an effort has been made to analyse the inter-state variations in the public expenditures and the impact thereof on the outcomes. Since benefits from investment in social services are realised over longer periods, per capita expenditure of the average for the period, 1985-86 to 1992-93, of different states has been linked to the change in outcomes. When states are ranked in terms of their per capita expenditures on education and health, Uttar Pradesh, Madhya Pradesh, Punjab, Maharashtra and Gujarat record the first five positions in that order. Kerala occupies a relatively high rank in terms of its expenditure on education but secures only a middle order rank with respect to expenditure on health. Inverse is the case with Rajasthan which ranks second in terms of the per capita expenditure on health and occupies one of the last ranks in education. But the main concern centres around the states of Bihar, Orissa, Andhra Pradesh and West Bengal, which are not only backward in terms of socio-economic attainments and also occupy the lowest ranks in terms of the per capita expenditures on both education and health.

## *Education*

Expenditure on education leads to the formation of human capital. Investment in education helps in increasing manpower skills and labour productivity, apart from promoting social awareness of the people. A recent analysis (Probe Team, 1999) of the National Sample

Survey data for Madhya Pradesh and Tamil Nadu finds that each year of schooling raises men's productivity by 8% and that of women's by 10%. The direct economic return to the society from primary education has been estimated to be above 20% in India. Realising the importance of primary education, more of outcome indicators at the elementary level have been considered which may limit the implications of the findings for the fact that expenditure on education relates to the aggregate level.

The outcomes in education in different states and their per capita public expenditures are presented in Table 9. For instance, changes in literacy rates are most significant in states like Andhra Pradesh, Bihar, Rajasthan, Uttar Pradesh and Orissa. With the exception of Uttar Pradesh, these states do not rank high in terms of per capita expenditure on education. This conforms to the overwhelming concern that more expenditure does not necessarily reflect changes to any significant extent. States, which ranked low with respect to literacy levels in 1991 have registered substantial increase in the rates in 1994, maybe because of their smaller base in education development. Among the states that ranked high in literacy levels in 1991, Tamil Nadu has performed the best by registering an improvement of 9.8 percentage points. On the contrary, it is interesting to note that Kerala could improve literacy levels by only 0.7 percentage points. This may be due to the fact that by 1991 Kerala had already attained saturation in literacy beyond which the rate of improvement can only be slower.

The factors that determine the literacy levels like enrolment rates and dropout rates also show significant improvement in states having lower expenditure levels. For example, the state of Bihar shows a substantial increase in enrolment rate and an 8 percentage point fall in the dropout rates. Other states like Andhra Pradesh, Orissa and Uttar Pradesh also record positive changes in the enrolment rates from 1986 to 1994. The states of Kerala and Tamil Nadu had already achieved significantly higher levels of enrolment by 1986 and so exhibit a negligible rate of change. Thus it is essential to analyse the level of attainment in terms of these indicators in the base year with respect to change.

Ironically, high enrolment and low dropout rates are marred by the phenomenally high rates of non-attendance in Bihar. This indicator reflects significantly upon the quality of the outcome in education. Even in Madhya Pradesh, the high levels of non-attendance rates have overshadowed the improvement in enrolment rate. Low economic status does to a large

extent account for the high incidence of non-attendance rates. Besides, poor initiatives by the government to introduce incentive schemes to retain students at school may also have contributed to the high non-attendance rates in these states. At the other end, Tamil Nadu is credited with the lowest levels of non-attendance, which can be attributed to the intensive efforts of the government towards various incentive schemes like mid-day meal scheme, etc. Thus, in a nutshell, the analysis is a clear indication of the inefficient manner in which expenditure is spent and utilised across states. Nonetheless, levels and patterns of spending as well as the efficiency with which the resources are utilised are important. Moreover, there are other evidences which suggest that a large fraction of the non-enrolled children aged between 5 and 14 years are not economically active (NSSO, 1998). So, economic compulsion cannot be the only reason for high non-attendance and dropout rates, a fact reiterated by Srinivasan (1998) while pointing out the differences in enrolment and dropout rates across states and income groups. Tamil Nadu and Himachal Pradesh have higher poverty rates than Andhra Pradesh, but the latter fares comparatively worse attainments in education. Pradhan and Subramanian (1999) also show that demand (unconstrained) rather than supply *per se* is the primary bottleneck in raising educational levels of the individuals. Thus, there should be an effort possibly on the part of the government to induce demand in the short run. And, anticipated future earning can be a motivating factor for enhancing the educational level of the people.

Access to education of different segments of the population in India is very skewed. At the one end, are the resource rich private schools that mainly cater to the privileged few. On the other end, are the ill-equipped and badly managed government schools that are meant for educating the majority. With respect to the quality of government schools, an indicator showing shift in preference of the economically backward population from government to private schools is the rate of enrolment in private schools which are mostly English-medium schools. From Table 9 it can be seen that there is a rising trend across states in the share of enrolment in private schools. Another interesting finding is that, with a slight increase in the income levels of the people and in their awareness, the change is significantly on the rise. This is observed in the states of Kerala, Punjab and Haryana. Even in the economically backward states like Bihar, Andhra Pradesh, and Uttar Pradesh, there is a shift in the preference of schools. The quality of services rendered in the government schools is extremely poor, thereby explaining the under-utilisation of the existing physical infrastructure

and the shift in the choice of schools. Another problem surrounding the government schools is that a large chunk of the private schools (aided by the government) eat away the funds otherwise to be used for them. Nearly 60% of the government expenses on schools is allocated as grants to the private institutions. These private schools are, however, not the English medium schools.

While analysing the performance of individual states in the area of social attainments, we find that though public expenditure is a very vital input it definitely is not a sufficient one. In this context, the argument of decentralisation gains importance as a serious issue that may help in improving accountability and efficiency in the system. The general idea is that locally accountable governments are most likely to target money where it is most needed and also monitor effectively the performance of public service providers under their control (Mahal, Srivastava and Sanan, 1999). Till recently in the absence of clearly defined powers and financial strength, most panchayat bodies tended to become sheer executing agents of the state bodies. With the 73<sup>rd</sup> and 74<sup>th</sup> amendments of the constitution, renewed interest in the issue of decentralisation and subsequent state-level legislation concerning local governments took place in many states. Concerted efforts by certain states like Kerala, Maharashtra and Gujarat have clearly shown the positive impact of effective decentralisation. Noteworthy experiments have also taken place in the states of West Bengal and Karnataka.

The role of the state should be focused on the fulfilment of the goal of universalisation of basic and primary education through demand-inducing welfare programmes. The current problem of the educational system is abundant supply of higher skills, which is poor in quality and devoid of any link with the existing demand. The solution to the problem lies in channelising the resources in education towards meeting market oriented demand for skills. Human capital is the capacity building mechanism for the people to participate in the growth process and government should channelise all efforts in this direction. The supply of higher education should be left to market signals to allocate and promote skill enhancement, establishing improved prospects for future earnings. This will possibly provide the incentives for education (Pradhan and Subramanian, 1999). Human development to translate into growth and better living standards needs employment as a via media.

However, over the years, despite implementation of several innovative schemes for educational development in India, the results have never been significant and quick to follow. This may be because of the inherent contradictions in the sector as suggested by Tilak (1994: 5). His study mentions about four major reasons for education not contributing enough towards its end, (i) under-investment in education, (ii) misallocation of resources among various levels, (iii) inefficient use of resources, and (iv) inequitable distribution of education costs. During the reforms when the presence of the first condition cannot be effectively dealt with, it is very important that the socially backward states lay enough emphasis on the remaining three deficiencies of the education system. It would be an understatement that for any developing economy investment in human resources is the most important one, and this could not be more relevant in times of economic reforms.

## *Health*

The shortage of resources along with illogical prioritisation and inappropriate incentive structure for providers has led to the existing poor quality of health care for the rural poor. The demographic and epidemiological profiles of the developing countries in Asia suggest the need for increased allocation to preventive primary health care. As a realisation to the higher social returns to primary and preventive health care, there has been an increased allocation in favour of these sectors in countries embarking on the reforms. In India, however, required emphasis is yet to be laid on primary health care. A larger share of public expenditure on health has been diverted to the curative measures. It has been estimated that in the eighties secondary and tertiary hospitals in India accounted for 71% of the total health budget of the government, leaving only 29% for the primary health facilities (Griffin, 1992). With respect to the infrastructure facilities also health sector represents a dismal scenario. Nearly four-fifths of the infrastructure are located in the urban areas. In a country where in the rural population accounts for 71% of the total, it is not surprising that the rural-urban disparities are so stark. These inherent problems have been compounded by the fiscal pressures of stabilisation which call for public expenditure compression. Besides, the statistics show that the majority contribution in the health sector is from the private sources, which further reduces any probable link between the public expenditure and health outcomes in different states.

The expectation of life at birth can very well be considered as the composite index of health status. An analysis of the changes in life expectancy (1981-91) in states *vis-à-vis* per capita expenditure on health presents interesting findings (Table 10). The states with higher per capita expenditure have mostly recorded higher change in life expectancy, save Rajasthan and West Bengal. These two states stand in exactly two opposite poles insofar as this association is concerned. West Bengal could achieve highest change in life expectancy with least but one per capita expenditure level, and Rajasthan registered least but one change in life expectancy with the highest per capita expenditure level on health. Here is a common reason for this paradox, *viz.*, socio-economic awareness; lack of it in Rajasthan and its abundance in West Bengal.

Like in education, in health also, those states having alarmingly low levels of some prominent indicators like infant mortality rate and child mortality rate in 1986 could register the maximum reduction in the same in 1995. However, in analysing the relation between per capita expenditure and outcomes, the emerging picture is very different from education. The changes in outcome indicators in quite a number of states are commensurate with the expenditure levels. States like Rajasthan, Tamil Nadu, Uttar Pradesh and Madhya Pradesh could combine high per capita expenditure with higher improvements in infant mortality rates. However, contrary to this, in Bihar and Orissa, least per capita expenditure could lead to significantly positive changes in most of the outcome indicators in health.

In case of crude death rate, the inter-state differentials are quite low, barring a few states like Uttar Pradesh and West Bengal. In Uttar Pradesh, there has been a categorical failure on the part of the government to efficiently dissipate the allocated expenditure. This state ranks first with respect to the per capita expenditure on education and third with respect to that of health. The crude death rate in Uttar Pradesh was the highest among the states in 1986 and has increased in 1995. But, in West Bengal, the improvement in this indicator is remarkable with a fall in this rate by 5.2 per thousand. Correspondingly, in terms of per capita expenditure on health, West Bengal is ranked last but one. This could be a clear case for inefficiency of expenditure in the states. An increased allocation, if not conceived with commitment to the issues and problems faced by the states, can be a futile exercise.

Morbidity rate is a measure of the suffering of the population from prolonged illness having an important indication on the loss of man-days. No doubt that prolonged illness influences the overall health status of the people to a significant extent. Now, let us look at the states with different per capita expenditure on health as to how they fare in morbidity rates. While doing so, it should be kept in mind that morbidity rate is an exceptional indicator of health in the sense that a higher rate of the same does not necessarily mean lower health status of the population, but definitely indicate increased social awareness of the people. This probably can explain the high variance in morbidity between Bihar and Kerala. Similarly, it may also be stated that the way health expenditure is supposed to reduce actual morbidity rates sans awareness levels, morbidity rate should determine the expenditure levels. In a way the patterns of both should corroborate each other in any region or state. But the findings show a completely confusing picture with loose links: Tamil Nadu, Rajasthan and Uttar Pradesh ranking first three in terms of per capita health expenditure secure respectively the last three positions in terms of their morbidity rates.

When states are ranked according to the actual indicators, Kerala comes first in all of them with correspondingly lower per capita health expenditure. Thus, the superior performance of the outcome indicators in health in spite of low expenditure levels could be explained by the complementary impact of educational attainments on health. The synergistic relationship between education and health makes it imperative that allocations to these sectors should not be done in isolation, because they promote each other. Any increase in one of these components of the sector at the expense of the other is self-defeating in nature. Schooling and health facilities complement each other: better health care helps children to do better in school just as better education helps people to utilise health facilities efficiently. They also affect each other via income. Therefore, there is a definite need to carve out an integrated social sector policy which may reduce the combined expenditure on education and health without reducing outcome in both.

Emphasising further on the nature of complementarity between education and health, one has to look at the literacy rates of 1991. The states of Kerala, Tamil Nadu, Punjab, West Bengal and Maharashtra which rank first five in that order in literacy rates also have better attainments of health status in terms of the most important indicator of infant mortality rate. This is evidence enough to reinstate the importance in promoting these two vital sectors

Rajasthan and West Bengal. Uttar Pradesh, one of the poor performers in terms of outcomes, ranks first with respect to the per capita expenditure on education and third with respect to that of health. West Bengal could achieve the highest change in life expectancy with the second lowest per capita expenditure. This suggests that even at the same level of expenditure considerable changes in outcomes may be possible, particularly in the case of some of the worst performers. Also, there may be linkages between expenditure on health and education that need to be explored and emphasised. Externalities of expenditure on education are stated to reduce the per capita expenditure on health.

The health and educational levels of the population may improve either as a consequence of economic growth or as a result of the public spending programme of the government. The effectiveness of public spending depends not only on the absolute amount of spending but also on the efficiency of expenditure. In the short run, when the efficiency of expenditure may not be enhanced, it is the level of expenditure that gains prominence in determining the performance of the social sector. Reforms are likely to put greater pressure on the poor who have less adaptability, and so there is a case for at least maintaining the public expenditure levels during the reform period. This needs to be coupled with re-allocation of expenditure within the social sector in favour of primary education and basic health care.

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Table 1								
Relative Performance of Selected Adjusting and Non-adjusting Countries, 1980-87								
Indicator	Adjusting Countries				Non-adjusting Countries			
Growth in per capita GDP between 1980 and 1989	27 of the 55 countries experienced negative rates of growth				16 of the 31 countries had negative rates of growth			
Per capita private consumption	The rank in terms of growth rate of per capita private consumption improved slightly between 1971-79 and 1980-87				The average rank in terms of growth in per capita private consumption declined slightly between 1971-79 and 1980-87			
Public expenditure on social sectors	Sectoral expenditure as a percentage of total public expenditure in:							
	11 Countries				12 Countries			
	Year	Educ.	Health	Soc. Sec.	Year	Educ.	Health	Soc. Sec.
	1980	14.8	6.6	36.2	1980	10.0	4.5	25.7
	1986	12.0	5.5	32.7	1986	12.1	4.7	28.6
	Per capita expenditure on education, health and social services in 1980 PPP\$ increased from 225.70 in 1980 to 227.30 in 1986				Per capita expenditure on education, health and social services in 1980 PPP\$ increased from 124.70 in 1980 to 188.90 in 1986			
Infant mortality rate	In 23 intensely adj. Countries, the rate of decline during 1977-82 was 12.7% and during 1982-87 was 12.6%				In 29 countries, the rate of decline during 1977-82 was 13.0% and during 1982-87 was 11.2%			
Average undernutrition Rate*	For 24 intensely adj. Countries, the rate was 7.81% in 1980 and 8.44% in 1986				For 32 countries, the rate was -2.54% in 1980 and 4.31% in 1986			
Primary school enrolment	For 25 intensely adj. Countries, the figures were 94.2% in 1980 and 90.1% in 1985				For 33 countries, 86.0% in 1980 and 91.1% in 1985			
Source: Khan (1993).								
*refers to percentage shortfall in per capita availability of kilo calories of food energy from the recommended level.								
<b>Adjusting Countries:</b> Burkina Faso, Burundi, <i>Cote d'Ivoire</i> , CAR, Chad, Congo, Gabon, Gambia, Ghana, Guineau, Guineau-Bissau, <i>Kenya</i> , <i>Madagascar</i> , Malawi, Mali, <i>Mauritania</i> , <i>Mauritius</i> , Niger, <i>Nigeria</i> , <i>Senegal</i> , Sierra Leone, Somalia, Sudan, <i>Tanzania</i> , <i>Togo</i> , Uganda, Zaire, Zambia, Zimbabwe, Bangladesh, China, Indonesia, <i>Korea</i> , Nepal, <i>Pakistan</i> , <i>Philippines</i> , <i>Thailand</i> , <i>Morocco</i> , Tunisia, Turkey, Hungary, Yugoslavia, Argentina, <i>Bolivia</i> , <i>Brazil</i> , <i>Chile</i> , <i>Colombia</i> , <i>Costa Rica</i> , Ecuador, Guyana, Honduras, <i>Jamaica</i> , <i>Mexico</i> , Panama, and Uruguay (intensely adjusting countries are italicised).								
<b>Non-Adjusting Countries:</b> Benin, Botswana, Cameroon, Ethiopia, Lesotho, Liberia, Mozambique, Rwanda, Burma, India, Malaysia, Papua New Guineau, Sri Lanka, Algeria, Egypt, Jordan, Oman, Syria, Yemen AR, Yemen PDR, Poland, Portugal, Dominican Republic, El Salvador, Guatemala, Haiti, Nicaragua, Paraguay, Peru, Trinidad and Tobago, and Venezuela.								

Table 2 Policy Reforms in the Social Sector	
<b>Proposed reforms in the social sector</b>	
➤	reprioritising expenditure within each sub-sector
➤	reduction of subsidies in higher education
➤	revising fee and other user charges in this sector
➤	mobilising non-government resources to finance public services in education and health
➤	increased emphasis to be laid on elementary and adult education
➤	decentralisation of administration of developmental projects
➤	strengthening safety net measures to ensure relief to those affected adversely by the SSAP
➤	removal of biases in favour of curative vis-a-vis primary in the health sector
<b>Developments in education during reforms</b>	
1991-	National Institute of Adult Education was set up
1992-	National Development Council Committee on Literacy was set up
1993-	District Primary Education Programme was launched
	-Total Literacy Campaign was started as a part of National Literacy Mission
1995-	National Programme of Nutritional Support to Primary Education was initiated
1995-	National Council for Teacher Education was set up
1995-	Scheme of Continuing Education for neo-literates was implemented
1995-	Computer Literacy and Studies in School was launched
<b>Developments in health during reforms</b>	
1992-	Girl to Girl approach and Balika Mandal Schemes were introduced
1993-	Child Survival and Safe Motherhood programme was launched
1993-	National Nutrition Policy was announced
1995-	National Maternity Benefit Scheme was introduced
1996-	New Health Care Policy was announced
1996-	Polio Immunisation Programme was undertaken on a nation-wide scale
	- Mahila Swasthya Sanghs
	- Large scale programme for awareness of AIDS has been launched in view of its increased incidence
<b>Social security measures during reforms</b>	
1992-	National Renewal fund was established
1993-	Revamped Public Distribution System was launched
1993-	Rashtriya Mahila Kosh was set up
1994-	Employment Assurance Scheme was operationalised
1994-	Prime Minister's Rozgar Yojana was implemented
1996-	Prime Minister's Intergrated Urban Poverty Eradication Programme was launched
1996-	Indira Mahila Yojana was initiated
1996-	Rural Group Life Insurance Scheme was introduced
1996-	National Social Assistance Programme was launched
1996-	Minimum Needs Programme

Table 3 Revamped Schemes in the Social Sector	
<b>Revamped schemes in education</b>	
➤	National Policy on Education has been modified in the light of the reforms
➤	Non-formal Education started during the Sixth Five Year Plan was revised with a larger coverage and was made more focused on the backward states
➤	Operation Blackboard introduced in 1986 was revamped
➤	National Literacy Mission started in 1988 adopted a more time bound approach
➤	Jana Shikshan Nilayam set up in 1988 was extended with higher enrolment targets
➤	Mahila Samakhya programme launched in 1989 was extended to have a wider coverage
<b>Revamped schemes in health</b>	
➤	National T.B Control Programme has been revamped owing to increased incidence of T.B
➤	Multi-drug therapy has been extended to the National Leprosy Eradication Programme
➤	Universal Immunisation Programme launched in 1985 has been extended to CSSM project

Table 4  
**Public Expenditures (Centre, State and U.Ts) on  
 Social Sector in India, 1985-86 to 1997-98**

<i>4.1 Actual Expenditures (1980-81 Prices)</i>					
<i>(Rs. in million)</i>					
Year	Education	Health	Social Security	Social Sector	TPE
1985-86	51525	26666	13419	91610	508607
1986-87	54930	28502	14469	97901	562767
1987-88	61134	30270	14582	105986	571847
1988-89	64451	30696	14692	109840	595418
1989-90	73536	31552	15698	120786	662733
1990-91	75323	32492	16788	124603	672440
1991-92	73376	32104	17263	122743	676286
1992-93	74568	32376	17565	124509	689512
1993-94	78431	35054	17451	130936	727692
1994-95	81808	36894	18766	137468	759182
1995-96	86297	38093	23686	148076	781876
1996-97 (R.E.)	95506	42656	26772	164935	843274
1997-98 (B.E.)	100429	45680	28702	174811	906445
<i>4.2 Annual Growth Rates</i>					
<i>(In percentages)</i>					
Year	Education	Health	Social Security	Social Sector	TPE
1986	6.6	6.9	7.8	6.9	10.6
1987	11.3	6.2	0.8	8.3	1.6
1988	5.4	1.4	0.8	3.6	4.1
1989	14.1	2.8	6.8	10.0	11.3
1990	2.4	3.0	6.9	3.2	1.5
1991	-2.6	-1.2	2.8	-1.5	0.6
1992	1.6	0.8	1.7	1.4	2.0
1993	5.2	8.3	-0.7	5.2	5.5
1994	4.3	5.2	7.5	5.0	4.3
1995	5.5	3.3	26.2	7.7	3.0
1996 (R.E.)	10.7	12.0	13.0	11.4	7.9
1997 (B.E.)	5.2	7.1	7.2	6.0	7.5

**Source:** Govt of India (Various Years), *Indian Public Finance Statistics*.

Note: TPE refers to total public expenditure.

**Table 5**  
**Comparative Growth Rates of Public Expenditure (1980-81 Prices) on**  
**Education, Health and Social Security in India During Pre- and Reform Periods**

*(In percentages)*

**State and U.T. Governments**

Time period	Education	Health	Social Security	Social Sector	TPE
1985-86 to 1990-91	9.39	3.61	5.87	7.21	5.92
1991-92 to 1997-98	3.91	4.71	6.61	4.51	5.49
1985-86 to 1997-98	6.16	4.25	6.30	5.63	5.67

**Central Government**

Time period	Education	Health	Social Security	Social Sector	TPE
1985-86 to 1990-91	12.04	2.84	-6.66	6.18	5.44
1991-92 to 1997-98	4.81	5.04	19.96	6.46	2.79
1985-86 to 1997-98	7.76	4.12	8.05	6.35	3.89

**Combined (Centre, State and U.T. Governments)**

Time period	Education	Health	Social Security	Social Sector	TPE
1985-86 to 1990-91	7.89	4.03	4.58	6.35	5.74
1991-92 to 1997-98	4.20	4.99	7.96	4.96	4.36
1985-86 to 1997-98	5.72	4.59	6.54	5.53	4.93

**Source:** Govt of India (Various Years), *Indian Public Finance Statistics*.

**Note:**

1. Combined growth rates may not necessarily lie between that of Centre and States, since these exclude centre-state transfers.
2. Growth rate for a period is the geometric mean of the annual growth rates of the respective years.
8. TPE refers to total public expenditure.

Table 6 Share of Expenditure on Education, Health and Social Security in Total Public Expenditure (1980-81 Prices) in India, 1985-86 to 1997-98				
<i>(In percentages)</i>				
Year	Education	Health	Social Security	Social Sector
1985-86	10.13	5.24	2.64	18.01
1986-87	9.76	5.06	2.57	17.40
1987-88	10.69	5.29	2.55	18.53
1988-89	10.82	5.16	2.47	18.45
1989-90	11.10	4.76	2.37	18.23
1990-91	11.20	4.83	2.50	18.53
1991-92	10.85	4.75	2.55	18.15
1992-93	10.81	4.70	2.55	18.06
1993-94	10.78	4.82	2.40	17.99
1994-95	10.78	4.86	2.47	18.11
1995-96	11.04	4.87	3.03	18.94
1996-97 (R.E.)	11.33	5.06	3.17	19.56
1997-98 (B.E.)	11.08	5.04	3.17	19.29

**Source:** Govt of India (Various Years), *Indian Public Finance Statistics*.

Note: Expenditure refers to revenue and capital accounts of Centre, State and U.T. Governments.

(In percentages)				
Year	Education	Health	Social Security	Social Sector
1985-86	2.96	1.53	0.77	5.25
1986-87	3.06	1.59	0.81	5.46
1987-88	3.27	1.62	0.78	5.67
1988-89	3.18	1.52	0.73	5.42
1989-90	3.47	1.49	0.74	5.70
1990-91	3.25	1.40	0.72	5.37
1991-92	3.11	1.36	0.73	5.21
1992-93	3.04	1.32	0.72	5.08
1993-94	3.01	1.34	0.67	5.02
1994-95	2.92	1.32	0.67	4.91
1995-96	2.94	1.30	0.81	5.05
1996-97 (R.E.)	2.98	1.33	0.84	5.15
1997-98 (B.E.)	3.17	1.44	0.91	5.52

**Source:** Govt of India (Various Years), *Indian Public Finance Statistics*.

Note: Expenditure refers to revenue and capital accounts of Centre, State and U.T. Governments.

(In percentages)					
Sub-sectors	1986-87	1991-92	1992-93	1994-95	1995-96
Primary	43.3*	43.8	45.3	46.3*	47.3
Secondary	31.5	30.5	31.6	31.4	31.7
Univ & higher edn.	14.3	13.2	12.7	12	12.1
Adult education	-	1.5	1.4	1.4	1.3
Others	10.9**	11	9	8.9	7.6

**Source:** Government of India (Respective Years), *Analysis of Budgeted Expenditure on Education*.

Note: \*elementary education and \*\*includes adult education.

Table 9  
Per Capita Public Expenditure (1980-81 Prices) and Change in Education Outcomes

States	Expen. on Education <sup>a</sup>	Literacy Rate <sup>b</sup>	Enrolment Rate <sup>c</sup>	Non-Attn. Rate <sup>d</sup>	Drop-out Rates <sup>e</sup>	Enrl. in Pvt. Schools <sup>f</sup>
	(In rupees)	(Percentage points)	(Percentage points)	(In percentages)	(Percentage points)	(Percentage points)
Andhra Pradesh	63.87	14.50	19.90	5.90	0.40	8.50
Bihar	50.20	10.00	20.50	11.60	8.20	8.60
Gujarat	89.44	6.30	10.50	5.70	1.30	1.40
Haryana	82.67	5.00	2.90	2.30	2.10	12.70
Karnataka	74.94	7.20	12.40	4.30	1.80	8.20
Kerala	108.94	0.70	1.20	3.70	0.80	10.80
Madhya Pradesh	108.97	8.00	16.30	15.50	0.00	2.60
Maharashtra	90.36	2.70	7.60	4.10	1.30	-0.50
Orissa	60.06	9.00	23.70	11.70	1.80	2.40
Punjab	102.63	7.40	15.20	2.10	3.30	19.10
Rajasthan	70.40	10.50	7.60	3.80	5.20	1.00
Tamil Nadu	85.41	9.50	1.70	1.00	-4.30	6.80
Uttar Pradesh	121.44	10.00	15.70	6.80	3.80	18.70
West Bengal	68.83	8.00	11.90	8.90	4.70	1.00

Note:

<sup>a</sup> refers to per capita per annum public expenditure on education for the period between 1985-86 and 1992-93 (*RBI Bulletin*, various years).

<sup>b</sup> refers to change in the indicator between 1991 (Census of India, 1991) and 1994 (NCAER, 1996).

<sup>c</sup> refers to change in the indicator between 1986 (NSSO, 1987) and 1994 (NCAER, 1996).

<sup>d</sup> refers to the year 1994 (NCAER, 1996).

<sup>e</sup> refers to change in the indicator between 1986 (Govt. of India, 1993) and 1994 (NCAER, 1996).

<sup>f</sup> refers to change in the indicator between 1986 (NCERT, 1992) and 1994 (NCAER, 1996).

States	Exp. on Health <sup>a</sup>	Life Expect. <sup>b</sup>	Infant M. Rate <sup>c</sup>	Child M. Rate <sup>d</sup>	Crude Death Rate <sup>e</sup>	Morbidity Rate <sup>f</sup>
	(In rupees)	(In years)	(Per '000 points)	(Per '000 points)	(Per '000 points)	(Per lakh pop.)
Andhra Pradesh	30.44	4.2	15	12.1	1.5	7684
Bihar	20.25	4.4	28	18.4	3.3	3817
Gujarat	45.04	4.3	45	15.2	2.9	2551
Haryana	40.80	4.1	16	6.8	0.6	6697
Karnataka	35.98	3.1	11	5.9	1.1	-
Kerala	40.48	3.9	12	4.7	0.1	7319
Madhya Pradesh	48.40	4.9	19	15.2	2.4	4801
Maharashtra	41.14	3.3	8	5.6	0.9	3487
Orissa	29.32	4.2	20	12.3	2.2	5011
Punjab	42.46	3.6	14	8.4	0.9	6692
Rajasthan	52.33	3.3	21	14	2.6	3150
Tamil Nadu	53.55	5.2	26	11.7	2	6775
Uttar Pradesh	50.50	7.9	46	21.3	-1.6	3525
West Bengal	27.76	6.1	13	5.8	5.2	6168

Note:

<sup>a</sup> refers to per capita per annum public expenditure on health for the period between 1985-86 and 1992-93 (*RBI Bulletin*, various years).

<sup>b</sup> refers to change in the indicator between 1981 (Govt. of India, 1994) and 1991 (CSO, 1998).

<sup>c</sup> refers to change in the indicator between 1986 (RGCC, 1998) and 1994 (RGCC, 1998).

<sup>d</sup> refers to change in the indicator between 1986 (RGCC, 1986) and 1994 (RGCC, 1994).

<sup>e</sup> refers to change in the indicator between 1986 (RGCC, 1998) and 1994 (RGCC, 1998).

<sup>f</sup> refers to the year 1994 (NCAER, 1996).