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INDIA: HEALTH SECTOR FINANCING

COPING WITH ADJUSTMENT
OPPORTUNITIES FOR REFORM

June 30, 1992

Asia Country Department II (India)
ation and Human Resources Operations Division

INDIA: HEALTH SECTOR FINANCING

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Health Sector Finance Study team visited India from 18 March to 15 April to initiate a logue between the World Bank and the Government of India on leading issues of direction d policy for the health sector in the face of structural adjustment. The team consisted of amianos Odeh (team leader), K. Subbarao (human resource economist), Stace Birks nsultant), Ruth Levine (consultant) and Charles Griffin (consultant).
r. Ravishankar, of the World Bank Resident Mission, New Delhi, provided invaluable llation of budget data and analysis of financial trends. Mr. Peter Berman joined the sion during the first part of its stay.

ISSUES AND ACTIONS IN PUBLIC HEALTH

In this action-oriented document, it is appropriate to isolate a series of priority ctives and to lay out a program of actions to meet these prime objectives.

The following section, before the main text, lays out these prime objectives.

INDIA

HEALTH SECTOR FINANCE STUDY

EXECUTIVE SUMMARY AND HIGHLIGHTS

The Purpose of the Report

1. This first Health Sector Finance Study initiates discussions between the Government of India (GOI) and the World Bank (WB and the Bank) on health finance and policy. This dialogue will: (a) clarify issues of direction and policy in the face of adjustment; and (b) it will influence the pattern of cooperation between the GOI and the Bank in the health sector for the next few years. This report will serve as background to the GOI-Bank dialogue and is a statement of the Health Finance Mission's findings.

The Research Process

2. This study assembles information and analysis that reflect Indian health sector planners', administrators' and practitioners' understanding of the challenges that the sector faces. The Bank team worked with India's leading operational and policy research institutions in health and family welfare, under the coordination of the Ministry of Health and Family Welfare (MOHFW). The team also reviewed budgets and other documents. Several states were visited to obtain the views of health sector officials and to gather additional information about the structure and functioning of health facilities.

3. The analysis and policy outcomes were widely discussed and generally endorsed by senior health sector personnel. The same themes that emerge from this report were vigorously discussed at a meeting of India's most eminent health policy researchers, chaired by the Secretary of Health and attended by the Bank team. These interactions have given the team confidence in the acceptability and viability of the analysis and recommendations contained in the report. In many ways the report is a joint statement of the considerable achievements of the Indian health system since independence, and the means of tackling the daunting challenges that it still faces before the turn of the century.

4. The report focuses upon the health expenditures of the Department of Health, though it considers expenditures within the Department of Family Welfare, especially where they impact upon primary health care provision. The report describes and analyzes patterns of allocation of resources to primary care, hospitals and medical education.

Primary care is taken in this report to mean all levels of curative and preventive care from the level of the Community Health Center and below. Health care facilities above the Community Health Center level are labeled generically as hospitals. It examines how resource allocation patterns are related to health indicators and service utilization. Some emphasis is also given to the role of the private sector, which constitutes the main provider of health services in the country.

curative / medical — NOT health

Center State and Efficiency Issues

5. The analysis presented in this report provides information on the implications of the relationship between center and state spending, and on the ways in which central-level policies can affect the sector. Although the Indian constitution gives primary responsibility for health services to the states, the center can play a key role in formulating national policy. It has also played a significant role in the control of major diseases through centrally-sponsored schemes.

6. The report describes how health financing is related to efficient and equitable provision of health services. It reviews resource allocation patterns and trends, and finds that public health financing is characterized by an emphasis on hospitals rather than primary care; urban rather than rural population; medical officers rather than paramedics (again with an urban bias); services that have larger private than social returns; and family planning and child health to the exclusion of wider aspects of female health.

mythology of medical science

7. This pattern of resource allocation impedes the government as it seeks to provide the greatest level of benefit for the broadest community, and specifically for the poorest populations.

SAP jargon

8. Without determined change in policies, there is a danger that these patterns of low-return public expenditures will be reinforced rather than ameliorated. This is particularly so in the context of adjustment.

Structural Adjustment, Equity and Directions in Health

9. This report is timely. The challenges facing the health system are thrown into high profile by fiscal constraints the government faces under adjustment. During this period, health administrators wish to ensure that budgetary constraints do not reduce the scale, equity, and quality of health service provision, and they are prepared to take difficult decisions toward these ends. It is clearly perceived that any redistributions or cuts in resources to health must be accompanied and offset by operational improvements that enhance efficiency and equity.

10. The impact of structural adjustment in increasing inter-ministerial competition for shrinking resources will be exacerbated within the health sector by: (a) the epidemiological transition, which will bring pressures to allocate still more resources to adult health and the chronic diseases of the elderly; and (b) the emergence of AIDS, which will further stress the system in both preventive and curative domains.

11. Overall, the environment for change is positive. Indian health planners and policy makers are acutely aware of shortcomings in the services they provide, and of the responsibility to provide returns to government expenditure that benefit society as a whole. Therefore, the major concern under adjustment must be reallocation of health sector expenditures to achieve greater effectiveness in solving national health problems, especially for the poor, who suffer disproportionately from poor health and high mortality. The means available to achieve this goal are: (a) targeting communicable diseases with public spending; (b) reinvigorating other primary care activities that produce the greatest benefits to the community and to lower income groups in order to make them more efficient; and (c) encouraging effective private sector health service delivery. These themes run through this analysis and its recommendations.

India's Achievements in Health to 1990 and Their Extension Into the Future

12. It is fashionable to express disappointment over progress in health outcomes in India. Indicators are judged not to have advanced as they could or should, by international comparison. In fact, the gains have been considerable since Independence, although unevenly distributed across states and social groups.

13. The health infrastructure has grown dramatically; over the past 20 years, the number of hospital beds has increased two and a half times. In rural areas, the primary care network has grown rapidly, particularly during the last two plan periods. The government now operates more than 1,900 Community Health Centers, 22,000 Primary Health Centers and 130,000 Sub-Centers providing basic curative care. The lower level facilities serve as the base for communicable disease control and family welfare workers. The incidence of malaria, tuberculosis, cholera and other communicable diseases that disproportionately affect the poor has been reduced. Smallpox has been eradicated. Leprosy cases have reduced from 3.5 to 2.2 million. Spending is increasing to counter the threat of emerging diseases like kala-azar and AIDS.

14. Overall progress is reflected in health indicators. The Infant Mortality Rate (IMR), a sensitive indicator of both socioeconomic development and access to health services, has been reduced from 146 per 1,000 in the 1950s, to 110 in the early 1980s, and to 91 at the beginning of the 1990s. Since 1965, life expectancy for women has increased from 44 to 59 years.

Expenditure Patterns Behind Gains in Health Status

15. Not all the improvements are attributable to the public sector health services, of course. They reflect an amalgam of public inputs ranging from water supplies, sewerage, and education to nutrition and integrated child development schemes. Improvements also derive from private expenditures upon health and living conditions. Indeed, it is the private sector that is the prime provider of many types of health care in India today, even to the rural poor. The extent of private health care provision provides an opportunity to consider more broadly the optimal role for the public sector. Evaluation of the public sector's comparative advantage in improving health, the potential for increasing public sector efficiency, and its role in improving equity of access to basic health services is of great practical importance.

16. The report documents that the achievements have been made despite the fact that health and family welfare received slowly declining shares of total spending after 1970, with a precipitous decline occurring in the 1980s. The main result of the combination of a declining share of public budgets for health and contemporaneous expansion of infrastructure has been increasingly inadequate support of recurrent costs. This "double squeeze" on the health system has limited the center/state capacity to create an efficient and equitable system of finance and service delivery.

17. The remainder of this summary emphasizes the impact of these problems. The amelioration of these problems underlies the importance of the government's reaction to structural adjustment. Depending upon its nature, the government's response to adjustment might either exacerbate or address the problems. GOI/donor actions in the short and medium term need to face these problems of efficiency and inequity head on. The means to do more in a sensible direction are clear from the report: (a) expand spending on health care and the communicable disease program, especially central spending; (b) redirect public resources to health activities with broad benefits to the whole nation; (c) improve the efficiency and effectiveness of service delivery primarily through adequate financing of an appropriate blend of inputs; and (d) redouble efforts to address inter- and intra-state equity

problems through the redistribution and targeting of public expenditures raising the primary health care services to an acceptable minimum standard.

Key Issues: Efficiency, Equity and Disparity of Health Provision

Goals and Practicalites of Health Care

18. A goal of India since Independence has been to improve living conditions for the poor. In health, this goal has been pursued principally through: (a) the communicable disease preventions programs; (b) the construction over the past two decades of the primary health care system; and (c) extension of the family welfare program to the village level. In each of these areas considerable accomplishments have been documented.

19. In the face of budgetary pressure and the start of the adjustment process, the health sector faces a critical decision point today. The health system must cater to a large population that is quickly approaching the one billion mark. It must struggle to contain more than half of the known cases of major endemic disease in the world. It must operate within states with marked variability in economic and social progress. In doing so, it operates an infrastructure that stretches existing budgets very thin and results in inefficiencies so marked that outreach of services to margins of the health system is hampered almost to the point of ineffectiveness. Has the time come to re-evaluate and re-deploy available resources to attack inequities that remain? In other words, has the existing primary health care system become so inefficient that it needs restructuring completely to reach the poor? Alternatively, will existing approaches continue to yield significant gains?

Re-Evaluation is Essential

20. The report concludes that a re-evaluation is appropriate, indeed essential. The years of expanding the health system to reach to the village level, educating personnel to operate the system, establishing a logistics system to support it, and simultaneously funding both hospitals and traditional communicable disease programs is a phase that is completed. The infrastructure is now generally in place, but is undersupported, underbudgeted and inefficient in operations. A new phase of consolidation and adequate support of recurrent costs is called for.

Inefficiencies Hamper Improvement of Poorest Quality Services and Inequity

21. Although the extension of the system has expanded coverage, persistent inequities have emerged that require in some cases redoubled efforts and, in others, innovative solutions. The two areas of concern are closely related: inadequate funding of the system to the point at which, in critical areas, it simply ceases to operate; and, solving persistent inequities.

22. Of all the inequities in the system, those of gender are the most striking. Health services have not been targeted to address the fundamental disparity in access between the sexes. In India, as in few other countries, females continue to be at greater risk than men of dying from childhood through their childbearing years. The sex ratio remains unbalanced, and in some states appears to be deteriorating. Publicly-supported reproductive and other health care for women has barely begun to meet the needs, particularly among the rural poor. Health professionals must take responsibility for addressing the health problems of women that put them at such risk in India during infancy and their reproductive years.

23. Persistent disparities in provision, access and impact of public health services can be seen when comparing poorer states to wealthier states, rural to urban areas, workers in agriculture and the unorganized sector to those in the formal sector, and individuals with few resources to those with more personal wealth. The persistence of these inequities is related to the failure to fund primary health services adequately to provide the personnel and supplies necessary to deliver health care of an acceptable minimum standard.

24. Similarly, communicable disease programs have suffered from inadequate funding. Most require matching state funds, which the poorer states are least able to provide. Funds from the center are withdrawn if state matching grants do not come forward. This frequently occurs, to the obvious detriment of such programs in the poor states. Yet residents of poorer states suffer most from the associated health problems.

Funding Falls Below a Critical Level

25. These imbalances illustrate how the goals of primary health care, despite success in establishing the system, can be impeded by practical constraints of public finance reducing resources below a critical level. Sub-optimal blends of inputs such as, drugs, other consumables and staff, overstretched logistics, lack of in-service training, absence of maintenance, and stress upon curative rather than preventive efforts prevail. Primary

services have been squeezed by declining expenditures and ever more costly hospital care. The result is uneven coverage of services and poor primary care. Until the system is fully and effectively functioning, it cannot properly or adequately reach the poor, the disadvantaged and the marginalized. It therefore cannot, with its low standard of efficacy, ameliorate inequities in access to health care and in the poor standard of health care at the margins.

26. This report addresses the means of refocusing government efforts within the existing policy framework to provide health services that are efficient and cost effective, that enhance equity and increase social returns to public expenditure. Adjustment provides the immediate stimulus.

The Fiscal Reality of Adjustment: Manifestation of Priorities in the 1992/93 Budget

Positive Outcomes of Adjustment

27. Structural adjustment can facilitate flexible, imaginative strategies and operational changes that will redirect public spending to ameliorate disparities and increase efficiency. If the opportunity is grasped positively, the health sector could emerge from the period of financial stringency, stronger, more capable, more effective and better targeted.

28. Alternatively, austerity can elicit a fiscal response in which all programs are cut arbitrarily across the board or a political response in which programs with the narrowest, best organized constituencies are spared from cuts and those with the broadest and poorest beneficiary base are slashed. Under either approach the public health service would quickly become inefficient in delivering health care, and increasingly hampered in its operations by insufficient and ill-distributed inputs less equitably and appropriately targeted. Given its weak funding situation pre-adjustment, it could easily reach a state of paralysis within a short time in many areas of operation.

An Initial Response to Adjustment

29. The central plan budget has been the first to be affected by adjustment. The central plan budget is important, although it is less than six percent of public expenditure on health, because it provides a demonstration effect and has leverage over state patterns of spending. For 1992/93, this budget was shocked by significant cuts. The budget cutting and reallocation process expose priorities at the center. They are a first test of the center's interest and ability to respond positively to adjustment.

30. The plan budget allotted to health in 1992/93 is Rs 302 crores, arbitrarily the same, in nominal terms, as the previous year. In fact, new funds for AIDS of Rs 58 crore for a World Bank assisted project are part of this allocation, so the health allocation was actually cut to Rs 244. This continues a trend since the 1970s of health receiving a declining share of central plan expenditure. Now existing programs in the plan budget have been cut, in one year, by 20 percent, without even accounting for inflation.

31. How did the MOHFW react? The communicable disease control programs are the big losers. The National Malaria Eradication Program, which funds the multi-purpose health workers who participate in many of the vertical disease control programs, was cut 40 percent, from Rs 83 crores to 50 crores. Tuberculosis programs were also cut. In contrast, medical education gained. Hospitals and allopathic dispensaries also gained by 13 percent. It is disquieting that this represents a shift to expenditure that rises disproportionately in major urban centers and toward programs with relatively few externalities at the expense of a program with large externalities and benefits to the rural poor. Central institutions are maintained at the cost of a program which will have negative ripple effects through all communicable disease programs and throughout the health system down to the village level.

32. It is important to note that the cut in the malaria program was not made on efficiency or technical grounds, but is a fiscally-driven response. It will continue the drift downwards of central expenditures on such programs.

33. The current budget shows that the central government has not used this opportunity to apply leverage, through budgetary allocations, to respond positively to adjustment. Its choices do not tilt states' expenditures towards health, and particularly toward communicable disease control and primary health care with high positive externalities and strong justification for public expenditures. If anything, it has done the opposite. In short, the center has missed an opportunity to raise spending on health and family welfare during adjustment as part of a social safety net. It has compounded this loss for the poor by redistributing its smaller budget for health away from programs that have large public benefits, especially for poorer areas.

34. The response of the states to the cuts have yet to be seen but can be predicted. The malaria program, for example, is operated as a matching scheme, with the states contributing at least half of the costs. With the cut at the center, states may be unlikely to increase their matching contribution to compensate. The poorer states, the very states that need to allocate more to this program, will be the least able to compensate for cuts at the center.

35. There is an urgent need for additional central funds for the health sector. The MOHFW needs to address such adjustment-related budgetary issues as a strategic matter.

36. The following sections provide recommendations for action. They are divided into short-term responses to adjustment and medium-term structural shifts in the health sector that can become the basis for long-term cooperation between the GOI and the Bank.

The Short-Term Policy Response to Adjustment: Immediate Actions with Limited Scope for Manoeuver

Enhancement of Efficiency through Redirection of Funds

37. In the short term, efficiency gains must be sought to facilitate the flexibility needed to redirect funds. The same discipline must be imposed upon government that is expected of the private sector. The available resources must flow to the areas of highest returns. This would be facilitated by enhancing flows to primary health care including communicable disease control, on a selective basis, to minimize inefficiencies, such as ineffective packaging of inputs. In particular, care must be taken to protect the flows of drugs and other consumables. Inputs to vertical programs should be more carefully planned and integrated to secure savings and to give mutual mitigation of cuts. The capacity for economic analyses at the MOHFW should be enhanced.

Restore Cuts to the Malaria and Tuberculosis Programs

38. Under adjustment, funding must be protected for programs with the greatest externalities, such as these communicable disease programs. The malaria program is critical because it is the source of funding for the multipurpose worker, who is responsible for many communicable disease control activities at the village level. These cuts will be devastating to the communicable disease program. An immediate response of the MOHFW should be to restore, at a minimum, funds for malaria control, to their 1990/91 level in real terms.

Increase Spending on Communicable Disease Control

39. By the same reasoning, additional spending is merited for communicable disease control. The center's contribution to aggregate spending on medical care and public health grew in real terms by only 0.8 percent per annum over the 1980s. Spending on these programs did not keep up with population growth and, especially, growth of the poor elements of

the population, growth in GDP, or growth in government spending. Public health and communicable disease control bore the brunt of the shortfall. Communicable disease problems in India are far from solved, and they precipitate high government and private out-of-pocket expenditures for curative care to treat preventable problems. Growing support for these programs in real terms is justified by this alone. But furthermore, it is the poor who benefit disproportionately from spending on communicable disease control; they are least able to protect themselves from the associated health problems. Preliminary estimates indicate, for example, that with an annual expenditure of US$20 million up to the year 2000, leprosy could be eradicated or at least brought under complete control. By all criteria, these programs merit immediate attention.

Increase Selective Spending on Non-Salary Inputs for Primary Care Health Services

40. It is well known that spending on health care, once a person becomes ill, is very high in India. Spending patterns are also somewhat perverse. The poorer 40 percent of the population spend more on acute care when they go to government doctors than do the richer 60 percent. Rural residents pay more than urban residents. Using government services in some cases is more expensive than using private services. There is wide agreement that, since 1986, primary health care services have deteriorated. This observation is borne out by falling real expenditures for non-salary inputs on a per-facility basis. Salaries, however, have been maintained. Under adjustment, these facilities, which are key to many programs, such as communicable disease control, immunization, prevention, health education, and family welfare should be enhanced rather than allowed to deteriorate further. It is important that the central government place the highest priority on assisting states, especially the poorer states, to increase spending on non-salary inputs, such as drugs, during this fiscal year. Otherwise efficiency of primary health care will sink so low that, in many of the more poorly served areas, the services will collapse altogether.

Develop a Health Economics Unit in the Department of Health

41. Decision makers must be fully informed of the effects of their program and budget decisions in terms of efficiency outcomes and the final impact on equity. Only clear information about the consequences of cuts can combat naturally strong tendencies to respond to the strongest constituency during the adjustment phase. It will require very strong analytical work to argue for higher budgets and a stronger policy making role for the Department of Health during the adjustment process and after. At the present time, the MOHFW does not have any such capacity. Indeed, the

present organization is oriented to medicine, public health, and managing service delivery systems, not to the economics of expenditure policy in the sector. This means the MOHFW is in a weak position in arguing for extra funds and justifying changed disposition of funds at a time of adjustment. Action should quickly be taken to develop a Health Economics Unit in the DOH. One of the first charges upon it will be to examine various policies relevant to selective cost recovery.

Begin Policy Development for Cost Recovery in Hospitals and Medical Education

42. Higher health budgets are essential, but spending should be targeted toward programs with greater country-wide health impacts. Without doubt, the end result will be lower public spending on hospitals and medical education, two areas where the private returns are high and the social returns relatively low. However, these programs lend themselves, for the very same reasons, to cost recovery. Cuts in government support to them do not have to mean cuts in budgets, because they have the ability to charge for their services. Sensible policy development requires that preparation (analytical, regulatory, and legal) begin so that these facilities can start to generate revenues to cover at least a fraction of their operating costs. The policy for cost recovery should ensure protection of the poor.

The Medium-Term Perspective for the Indian Health Sector

43. It is difficult to translate intense immediate fiscal stress into longer-term structural adaptation. The 1992/93 budgetary decisions indicate preoccupation with the present and the near future. The time frame and political viability of reforms link with the states' different socioeconomic achievements. Action at the center is sensitive because it has leverage and is needed to direct long-term reform for sustainable health care, aimed preferentially at the poor.

44. There is wide agreement over policy aims: (a) target public money to basic health care provision, including control of communicable diseases, that will enhance efficiency of operations and disproportionately benefit disadvantaged populations; (b) enhance the quality of hospital care; (c) capture wider resources, through cost recovery, internalizing benefits for particular institutions; and (d) improve returns to private spending by benign regulation and selective encouragement of the private sector. Several of these issues are of immediate concern and have been discussed above. This section is divided into two categories of action, "leading practical actions" and "center-state budget recommendations".

Leading Practical Actions

Make Primary Health, Including Communicable Disease Programs, the Heart of the MOHFW Budget

45. The present center and state health budgets combine public expenditure of widely differing social benefits. The mix of education, primary, and hospital care disguises real cuts in specific programs within the overall budget, and blurs priorities in reallocation to secure efficiencies.

46. Therefore, medical education, research, and hospitals should be accounted under new, separate directorates' budgets, similar to the family welfare budget. This separation would highlight top priority public expenditure for primary health provision, including: the Community Health Centers, the Public Health Centers, sub-centers and communicable disease programs. These expenditures should reinforce each other, with large benefits that reach beyond the individuals receiving care.

Independent Hospitals: Improved Quality and Resource Enhancement

47. Lesser priority for public expenditures should be given to hospitals. Increased cost recovery, moving back to at least the levels of the 1960s is justified. Cost recovery and greater administrative autonomy for hospitals will allow state financial support to decline.

48. Hospitals might be grouped for quality control under a Council for Hospitals to administer grants, with few exceptions, no greater than constant in nominal terms, from center and state. Hospitals would administer independently these grants and funds raised through cost recovery. The cost recovery system would have prices based on local conditions, and would include provisions to protect the poor. Eventually, as cost recovery becomes established, government subsidies would be targeted specifically to needy patients.

Medical Education: Fees, Quality and Equity of Access

49. Medical education should pass to a Council for Medical Education, linked with higher education as well as health. Fees should be charged for medical education, since high private rates of return prevail, and there is no shortage of doctors in India. A suitable scholarship package could be linked with reservation policy, and incentives to serve in rural areas. Merit scholarships could contribute to maintaining high quality students.

Medical Training: Enhancing Skills and Providing Appropriate Manpower Blends

50. The Council for Medical Education would also: (a) revamp the content and curriculum of medical education; (b) study manpower norms and evaluate incentives; (c) encourage suitable nurse and paramedical training; (d) establish in-service training; (e) coordinate medical research orienting it towards indigenous communicable diseases; and (f) regulate private medical colleges.

Coordination between the Department of Health and the Department of Family Welfare

51. The two departments within the MOHFW must improve coordination of their activities. Both have stakes in the successful operation of the PHC system, but they currently are competitors for resources within that program. In areas such as maternal and child health and communicable disease control, greater coordination of efforts would facilitate the effectiveness of the programs. The Bank encourages and will support initiatives that tap the benefits of these two departments working in concert.

Center-State Budget Recommendations

The Rank of Primary Health Expenditures in the Social Sectors Should be Enhanced

52. There has been a trend at center and state levels toward underfinancing of primary health care, including communicable disease control and other interventions that provide benefits not only to the individual but also to the larger community. This trend should be reversed, after disaggregation of the budget, as discussed above.

Policy Over Centrally-Sponsored Programs

53. The potential leverage of centrally-sponsored programs to implement national policy is being under-exploited. Disbursement of center expenditures by the center related to primary health should: (a) eliminate arrears in the family welfare account with the states; (b) consider contributions by the center for payment of some recurrent costs in communicable disease control and primary health care, to ensure that the existing programs operate efficiently; and (c) modify the criteria by which the center transfers funds to states to better target poverty and specific diseases. There is also scope for better targeting of these funds towards

poorer and more disease prone areas within states. If the states are to perform better in this task, their analytical capacity needs improvement, too.

Enhance the Center's Role in Diminishing Inequity: Better Grant Targeting

54. Under the Social Dimensions of Adjustment Program (SDA), the center could adopt, in the special case of primary health, a poverty basis for distribution of grants to states, rather than the general population based formula. This would link primary health expenditures more closely to health indicators and outcomes.

Increase the Center's Role, but with Flexibility and Efficiency

55. Transfers of project-designated money, or even commodities such as sprays from center to state should be replaced by transfers of funds, on a menu driven basis, for areas of primary health care and communicable disease control. State governments could work from local needs and priorities.

The Center's Regulatory Role

56. With such a large share of care being provided by the private sector, the state's regulatory role should be upgraded. The present nature of regulation, often counter-productive, should be reevaluated. Quality control over drugs, and delivery of private care services deserve scrutiny. The poor need more protection as patients, but encouragement of legitimate private sector initiatives must be facilitated.

Positive Approaches to Enhancing Primary Health Care

57. At district, block, and village decision making levels, efforts should be made to empower health officials by having them participate more fully in the planning process to integrate health with other sectors. This change would facilitate targeting and development of priorities based on village and block tribal composition, degrees of aridity and type of local economy. Enhanced supervision and positive management are integral to this, to generate new information flows. For example, in the face of such a large burden of water-borne diseases in India, and recognizing that development of new water supply systems is housed in other ministries, the primary health program could have a key role in monitoring and improving the safety of drinking water in villages.

Possible Bank Approaches to Assistance for Primary Health Care and Disease Control

62. The first priority for World Bank assistance must be to deal with primary health care, including disease control. There are two possible approaches to dealing with disease control programs:

(a) The Comprehensive Integrated Approach would represent a new initiative administered as one project along the lines of a sector investment loan of simultaneous, coordinated and combined support to vertical communicable disease programs and other primary health care services. This one-project, one-budget approach could: (i) ensure additionality; (ii) avoid duplication; (iii) protect investments through maintenance programs; (iv) benefit from relationships in the delivery system; and (v) improve blending of resources. Technical support within the MOHFW is essential, with health economists and analysts to establish relative benefits of various spending packages; and

(b) Another possible approach would focus on discrete problems. In this case, specific diseases would be treated within a carefully programmed strategy that would be linked with key sectoral and institutional aims. Care would then be taken so that resources would not shift away from these agreed priorities. Among the highest priorities for the "discrete" approach would be Malaria, Tuberculosis and Leprosy.

63. General assistance to the Primary Health Care System would be a separate activity under this disease-specific pattern of assistance. It would seek, within a first phase of consolidation: quality improvements through packaging and blending, rationally and flexibly, the related actions needed to deliver health care at a village level; monitoring of outcomes with refined targets effective in enhancing productivity and quality of service provision; and widening of primary health care services to pursue equity of access.

Hospital Assistance: A Catalytic Role for the Bank

64. As a second priority, the Bank could work with the MOHFW and other donors to develop a strategy to assist hospitals in their transformation to semi-autonomous, self-financing organizations, with the following specific goals:

(a) Finance and assist the new over-arching administration that would supervise independent hospitals, for institution building and operations research into cost recovery and norms to protect the poor. Staffing and training would be important. The regulatory role would encompass standards in the private sector;

(b) Restructuring of medical education, through a health manpower project, with emphasis on in-service training and upgrading, revisions of curricula, increased output of nurses and paramedical staff. Cost recovery and scholarships would be important, as would medical management; and

(c) A hospital-specific series of programmed packages of institution-building would be part of this support.

65. The Bank and the Government of India will need to carefully review the manner in which the above strategies can be related to activities and investments of the center and of the states.

66. In addition, Bank assistance must take a long run perspective. The Bank cannot have a fruitful impact on developments in the Indian Health Sector through individual, unrelated projects. Rather, the most useful impact could come from a series of well focused and related efforts. It is strongly suggested that the Bank and GOI agree on a number of areas for priority collaboration along the lines noted above and that they be prepared to stay with those over, say, a fifteen year period. Through a series of three or four projects aimed at leprosy, for example, it might be possible to eradicate leprosy. A series of communicable disease projects focusing around TB could make a large dent in the incidence of that disease. The same might be true, in addition, for cataract blindness and the improvement of eye care services.

Enhanced Efficiency, Quality of Health Care and Equity.

67. To continue to improve health provision, the GOI must establish priorities, target with increasing refinement, secure more efficient practices and operations, seek to obtain greater social benefits by linking to investments in other sectors, and couple health provision with the communicable disease program. This is admittedly difficult, but heightened discipline in the health system, to improve efficiency, is closely linked to the effort to eradicate poverty. In this, the GOI can pursue directions for health care provision that maximize returns to public expenditure.

68. In precipitating actions to set such trends, adjustment is an opportunity not to be missed. Certainly, technical opinion in the health sector is aware of this. There is some urgency in securing a positive evolution of policy, before fiscally driven cuts, with little regard for the efficient functioning of the health system, effect severe damage to the quality and equity of the services that can be delivered.

The Bank and Donors as Partners in Affirmative Change

58. Bank involvement in the health sector will, in the short term, be influenced by the need to alleviate the impact of adjustment. Primary health care is part of the safety net. Over the medium term, the Bank's concern will be to enhance equity and efficiency of sustainable delivery of primary health care, with communicable disease prevention programs emphasized. A secondary aim will be to ensure effective hospital care that does not detract from the primary health care budget and that supports primary health care.

59. The analysis suggests that Bank and other donors' assistance should continue in existing activities and financing reforms to: (a) facilitate wider control of communicable diseases; (b) provide public sector primary care and protection targeted for the poor; and (c) ensure quality of hospital care and medical education, in part through cost recovery in the public sector and regulation of the private sector health services.

Expanded and Refined Assistance to Ongoing Projects

60. The Bank currently supports several projects that have close ties to the health sector, and that serve, even if indirectly, to support the financing reforms recommended in this report. These include support for maternal and child health activities, and projects in the fields of population, nutrition, education and AIDS prevention. Such supporting activity should pay close attention to the issues raised in this report, and in particular, to the potential of decreasing efficiency that infrastructure projects have suffered because of diminished supporting funds for current expenditures such as maintenance, drugs and other medical consumables.

New Initiatives in the Bank Program

Immediate Actions under the Social Dimensions of Adjustment Program

61. The Bank will work with the GOI within the SDA program to support the actions listed earlier under the recommendations for the short-term policy response to adjustment. Top priorities for the Bank are restoration of cuts to the communicable disease programs, and increases to key programs. The Bank considers additional recurrent support to PHC programs for specific non-salary inputs, such as drugs, medical supplies and fuel to be essential to support the communicable disease programs.

ISSUES AND ACTIONS IN PUBLIC HEALTH

OBJECTIVE	ISSUE	ACTIONS
the Health Budget	Declining Health Budget: The 1992/3 plan budget at the center is arbitrarily the same (in nominal terms) as the previous year's (Rs. 302cr.) contrary to the spirit of structural adjustment, the share of health in total central outlays was reduced from 0.70 in 1991/92 to 0.62 in 1992/93. The new funds for AIDS (rs.58cr.) from the Bank are part of this allocation. This means that the health budget was actually cut to Rs.244 cr. Accounting for inflation, the budget was cut by over 30% from the level of the previous year. Per capita health spending will be further reduced by the population growth rates.	Restore the health budget to its previous share of total Central Plan outlays. Increase allocations to health to the level of historical budget increase (About 3% in real terms). Double allocations to endemic disease control programs within a strengthened health budget.
...e Equity and Externalities	Declining Budget for Endemic Disease Programs: In the 1992/93 budget, the Malaria Program was cut by 43% in nominal terms, TB was cut by 16% and Goiter, Encephalitis, Filaria and Guinea Worms programs were reduced from 8 crores to about one crore. The cut in Malaria is especially serious since this program finances the multi-purpose health workers who participate in many vertical disease programs. TB is expected to rise as AIDS begin to show its impact. In contrast to budget cuts in endemic diseases, medical education and hospitals gained. It is disquieting that this represents a shift to expenditures that rise disproportionately in major urban centers and toward programs with relatively few externalities at the expenses of a program with large externalities and benefits to the rural poor.	Restore budget cuts to the Malaria, TB and other programs to the level of the previous year. Develop a plan of action to strengthen the Communicable and Endemic Disease Programs with corresponding allocations of sufficient resources. At a minimum, double the Endemic Disease Program Budget at the center and encourage states to do likewise over a reasonable period of time.

OBJECTIVE	ISSUE	ACTIONS
trengthen Budgets for ry-Level Health ices* : Deliver tive Services	Input Imbalances: Increases in the numbers of primary health institutions (CHC. PHC and SubC) were not matched by corresponding health/family welfare budgetary increases. Expenditure per facility is rapidly declining. Decreased allocations per facility disturbed the fragile balance in the input packaging of non-salary resources. Examples of vehicles without drivers or gasoline money, unavailability of certain required drugs and lack of other supplies are very common among CHC's, PHC's and SubC's.	Define an effective package/standard of input for CHC, PHC and SubC and quantify the resource requirement needs over the next 3-5 years. Agree on a time-bound plan for allocating appropriate budgets to deliver a meaningful input package as defined above. Begin providing an effective input package/standard under adjusted budgetary allocations.
. Improve Cost Recovery om the Affluent in Medical ducation	Almost Total Absence of Cost Recovery: Medical Education Students pay 300-400 Rupees a year, a fee structure determined over 20 years ago. The cost of producing a Medical Education graduate at government schools averages between 100-120 thousand rupees. In the private sector, medical education costs average about 150 thousand Rupees. Fees should be charged for medical education from students from affluent families, since high private rates of return prevail and there is currently an oversupply of doctors. Cost recovery could be used as a mechanism to rationalize the present system and improve equity considerations. A suitable scholarship and loan system could be linked with reservations policy and	Prepare guidelines for cost recovery measures which aim at recovering around 20% of costs within 3 years. Announce the Cost Recovery Policy. Give Hospitals appropriate authority to introduce cost recovery measures, ensuring that funds collected would largely remain at the level of the institution. Begin cost recovery and freeze the central operating budget for Hospitals at the 1992/93 level.

Primary-level health services include both services provided under the Health budget (ie. in CHCs and PHCs) and services provided under the Family Welfare program (ie. in SubCs).

OBJECTIVE	ISSUE	ACTIONS
	incentives to serve in rural areas, and would ensure that medical education remains free for students from poor families. Budgetary savings could be channeled to produce needed paramedical personnel.	
rove Cost Recovery Affluent for Hospitals	Inadequate Cost Recovery Efforts: Less than one percent of hospital expenditures is collected from patients. The revenue generated is currently diverted to a central pool and does not revert back to the health sector, let alone the institutions collecting it. Hospitals have no incentive to undertake cost recovery as the cost of doing so is often higher than the revenues collected. The Cost Recovery System should have prices based on local conditions and should include provisions to protect the poor.	Prepare guidelines for cost recovery measures which aim at recovering around 20% of costs within 3 years. Announce the Cost Recovery Policy. Give Hospitals appropriate authority to introduce cost recovery measures, ensuring that funds collected would largely remain at the level of the institution. Begin cost recovery and freeze the central operating budget for Hospitals at the 1992-93 level.
prove Coordination with Social Sectors	Weak Coordination: Health is very much influenced by availability of clean water supply to villages, effective sewage disposal facilities and an informed citizenry. Health should be in a position to lobby for improved coverage and quality of water, sewage and educational services that target the vulnerable groups. (Effective delivery of health services is also a function of adequate provision of other sector services, e.g. transport and security). Currently no formal coordination mechanism is in place	Establish a Social Sectors Coordination mechanism at the National, State and Community levels including the Panchayats. Review performance and implement improvement recommendations.

OBJECTIVE	ISSUE	ACTIONS
Develop Institutional [illegible]city in Policy Planning [illegible] Economic Assessment in [illegible]lth and Family Welfare	Weak Planning and Absence of Economic Assessment: During the adjustment phase (and beyond) programs competing for limited resources must be based on clear policy objectives and a strong analytical/economic work to present justifiable arguments for budgetary support. At present no unit, department (or even a single staff) in the Ministry of Health and Family Welfare is responsible for economic assessment and planning, or the evaluation of health impact brought about by budgetary shifts.	Prepare terms of reference for the Health/Family Welfare Economic Planning Unit Define institutional arrangements, staffing, budgeting and resources needs of the unit. Define a work program for the first year which would include preparation of an operational plan for implementing the "Action Plan for Revamping the Family Welfare Program In India" and the beginning of similar work on Health programs. Obtain formal approval, sanction the needed posts and appoint a Director General to head the unit. Establish the unit and initiate the work program as agreed.
H. Provide Meaningful [illegible]nformation for Effective [illegible]ecision Making	Inadequate Health Information: Available health information is incomplete, of historical nature and basically ineffective as a tool for decision making.	Identify key information needs for effective decision making. Define a detailed plan of action to deliver effective health information, including institutional arrangements at center and states, staffing needs and resource requirements. Initiate the implementation of Health Information System.
I. Strengthen Research in Endemic Diseases	Inappropriate Research: The 1992/93 research budget was cut to almost half its level of previous' year (from Rs.21.5 to 11.3 crores). Research on cancer represents the lion share of total research budget. The Central Government should increase its research activities in public health diseases that	Develop a research agenda for endemic disease and estimate its resource requirements. Increase the research budget on endemic disease (not cancer) and seek support from external sources to augment local resources.

OBJECTIVE	ISSUE	ACTIONS
	affect the majority of the Indian Population.	
ct Capital Investment	Insignificant Maintenance Budget: Currently, only two percent of health institutions' budget is allocated for maintenance. This limited budget is often diverted to other pressing needs. The economic life of much of the health infrastructure is drastically reduced for lack of maintenance.	Ensure that maintenance budget is not diverted to other expenditure areas (by enforcing current regulations). Double the maintenance budget and ensure that it is earmarked for this purpose.
versity Medical tor	Inadequate attention to Paramedical Personnel: The system is currently producing too many doctors and too few nurses. The ratio of doctors to nurses is 3:1. Doctors are facing growing unemployment, while nurses and paramedical personnel are in short supply.	Prepare a Health Personnel Requirements Study with actions required to produce more nurses and paramedics. The study should recommend steps to meet a more balanced medical education specializations.
egrate Health Delivery s to Improve iveness	Weak coordination between the Department of Health and the Department of Family Welfare. The two Departments within the MOHFW must improve coordination of their activities. Both have stakes in the successful operation of the PHC system, but they currently are competitors for resources within that program. In areas such as maternal and child health, immunization and communicable disease control, greater coordination (if not complete integration) would ensure the effectiveness of the programs.	Prepare TOR for integrated health delivery system. Implement the study; define the action plan and its resource requirements. Discuss the findings with the States and agree on a course of action to implement the agreed recommendations.

OBJECTIVE	ISSUE	ACTIONS
Improve Productivity - ough Staff Training	Low Priority to Staff Development: Other than pr. ect specific training through externally funded programs, staff training is completely neglected. Public sector health staff receive no training or upgrading of health knowledge. Training is viewed as attending seminars. The numbers involved are extremely insignificant. Resources for such activities are covered under travel budget. "Training" as such is not a recognized part of the budget.	Prepare guidelines for a Staff Development Plan (including Doctors, Nurses, Paramedics, Hospital Administration, Health Finance, etc.). Prepare the Staff Development Plan including the resources needed to implement it. Establish a Training Dept at MOHFW and approve its budgetary allocations. (Encourage States to follow suite). Introduce "Training" as a line item in the Health Budget with an initial allocation of no less than one percent of total budget. Secure Government commitment to increase the training budget to no less than three percent of total budget within three years.
Ensure Responsiveness of edical Education to Public ealth Needs	Limited Orientation of Medical Education: The present system pays little attention to public health orientation; it emphasizes tertiary hospital type of specialization. Additionally, Management and Health Finance courses are totally neglected yet doctors are expected to manage health institutions (from specialized hospitals to rural health centers) without formal orientation.	Review the Medical Education Curriculum with a view to improving content based on health needs. Allocate sufficient funds to implement recommendations.

OBJECTIVE	ISSUE	ACTIONS
ance Private Sector eness Through nate Regulations	Weak Quality Control: Available drugs are of uneven and unproven quality. Health stores dispense drugs (antibiotics, etc.) without referring to prescriptions by qualified doctors. A major portion of "Doctors" in the private sector have no formal qualifications.	The central Government should develop a quality control program to regulate (benignly) private sector practices in dispensing drugs and define acceptable standards for private sector doctors. With the court system being very slow and the absence of "malpractice" culture, Government regulations take on added significance and urgency. Refine regulations based on experience.

INDIA

HEALTH SECTOR FINANCING

PREFACE AND READERS' GUIDE

Purpose and Background to the Report

1. The purpose of this Health Sector Finance Study is to initiate discussions between the Government of India (GOI) and World Bank (WB and "the Bank") on Health Finance and Policy issues. This dialogue will serve to determine the main areas of cooperation between the GOI and the Bank for the next few years.

2. Planners, administrators and practitioners in the Indian health services are already acutely aware of the main challenges that the sector faces. Furthermore, there is broad agreement between the Bank team and the policy makers in central, state and other capacities, about the chief health planning and finance issues, and about the most rewarding areas of potential cooperation. This report is therefore a joint statement of the considerable achievements of the Indian health system since independence, and the daunting challenges that it still faces.

3. The task facing the health system has been thrown into high relief by the present fiscal constraints under conditions of adjustment. The report is timely, in that one of the concerns of the Bank, the health administrators and policy makers is to ensure that the budgetary constraints do not reduce the access of the poor to health care services. To avoid deleterious impact, any cuts must be accompanied by operational adjustments that enhance efficiency, and so maintain or enhance outreach of services, avoiding damaging equity of access to health services.

Fiscal Cuts, Efficiency and Equity

4. This raises the general question of equity of access of the poor to Indian health services, and the degree to which public expenditure militates in favor of reductions in inequity by favoring the poor, disadvantaged and vulnerable groups. Analysis in the report supports the widespread view that, before the present period of acute adjustment, low levels of operational efficiency, together with structural fiscal and administrative procedures, impeded the ability of the public sector to alleviate inequities. Disparity of provision and access are suggested when making comparisons based on region, gender, income, social category, level of education, and health status.

5. This report addresses the degree to which the government can take advantage of current conditions to refocus its strategic and practical operations, within existing, admirable policy aims. The objective is to provide health services in a manner that increases equity and enhances returns to public expenditure. The immediate stimulus for this action is the adjustment process, as characterized in the 1992/93 budget.

6. The present period of adjustment is of great significance. If GOI strategies in health are flexible and imaginative in identifying gaps in health status and access to care, and determined in operational changes to redirect public spending to ameliorate these disparities, then the discipline of adjustment will provide an ideal and facilitating environment. After the most stringent period of adjustment is over the health sector will be more efficacious, more carefully targeted to remedying the prevalent causes of morbidity and mortality, and of more utility to the large majority of the population. Equity of public health care will be enhanced.

7. If, on the other hand, the line of least resistance is taken and health provision is allowed to suffer essentially fiscally-determined cutbacks, a less effective outcome will result from adjustment. Under these circumstances, the public health service will, in a couple of years' time, be even less effective and efficient operationally and even less equitably and appropriately targeted. The reductions in efficiency in health care delivery could hamper the functioning of services to the point of paralysis in some aspects. Under these circumstances, the health service would become a major drain upon the public spending of the states and center with little positive impact upon the health status of the population at large.

The Structure of the Report

8. Following the executive summary, Chapter 1 places the health situation in India within its regional context, highlights the considerable health achievements, and provides a brief overview of sources of financing. Chapter 2 analyzes trends in health spending, focusing on the distribution of the sector's resources along programmatic lines. Chapter 3 looks in more detail at trends and patterns in health indicators, access to health services, and health care utilization. Chapter 4 discusses characteristics of the health system's organization and financing that influence the sector's ability to alleviate existing imbalances in distribution of resources. Chapter 5 highlights key efficiency-related issues that affect the allocation and quality of health services. Then chapter 6 highlights priority areas for operational and procedural change with a view to enhancing effectiveness, targeting and, therefore, equity of health care delivery under the current conditions of

structural adjustment. Chapter 7 presents medium-term policy considerations, with an emphasis on reforms that will be fiscally and administratively sustainable. Throughout, the focus is upon efficiency gains and reorientation of spending priorities. Enhanced equity and a greater capacity to ameliorate inequities should result. In Chapter 8, the analysis is interpreted in terms of its significance upon the World Bank's view of opportunities for donors to assist the Indian health sector.

9. Throughout the report, there is scope for analytical improvement and stylistic enhancement. Data and the reporting of data, still need to be refined. It was, of course, not possible to conduct an exhaustive analysis of Indian health financing during a five-week mission. More detailed sources of fiscal information are, at present, under publication. More surveys are about to be launched. All will help refine the picture, but these information constraints do not detract from the analysis since the condition of the health sector is clear, the analysis straightforward and the highlights of the conclusion unequivocal.

10. Above all, this is an action oriented document, designed to provide suitable guidelines, based on careful evaluation of available improvements in health care provision under conditions of structural adjustment.

I. INDIA'S HEALTH CARE SYSTEM: AN OVERVIEW OF PROGRESS AND PUBLIC POLICY

1.1 Any assessment of India's health sector must begin by acknowledging the progress already made, the most notable being a sustained increase in the life expectancy of the population. Infant mortality rates have fallen, and health infrastructure has grown manifold in both rural and urban India. Compared to the situation at the time of Independence, most Indians would find that they have more to eat and are less vulnerable to famine, and many would find a better chance of avoiding severe illness. Among large portions of the population, both socioeconomic and health indicators compare favorably with countries such as the Philippines and Thailand. Given that population has nearly trebled over this period, this is no mean achievement. It is attributable at least in part to the concerted efforts made by the Government of India (GOI) to provide the population with benefits under health and other social sectors.

1.2 At the same time, progress has not been uniform across the country's population. India is vast and diverse, geographically, economically, socially and culturally, and wide differentials exist among sub-populations. While the health status of much of the population has improved, certain states and certain groups continue to experience extremely high levels of morbidity and mortality; these groups have very limited access to affordable and good quality health services.

1.3 More than many other sectors, health has taken on the responsibility to help close the gaps between rich and poor through its allocation of resources. The extent to which it has succeeded has been influenced by a range of factors both within and outside of the sector. To date, progress in reducing the differentials in health indicators between better- and worse-off populations has been slower than many would hope. In part, this is attributable to the levels and patterns of resource allocations, and associated inefficiencies within the health sector.

1.4 This chapter provides a brief review of the achievements in the health sector, placing the Indian situation into its regional context. It also provides an overview of the sources of health financing, which are then discussed in greater detail later in the report.

A. Evolution of Public Policy

1.5 Improvement in health status has been one of the primary goals of development policy in India. A fundamental tenet of public policy has been to provide free health services, curative as well as preventive, to the entire population. In the years following Independence, several committees

were established to develop norms and targets, and to suggest institutional structures to achieve the goal of universal free health care to all citizens. Driven by this policy of universal free health care, a nation-wide three-tier system of rural health care comprising Sub-centers (SubCs), Primary Health Centers (PHCs) and Community (taluk) Health Centers (CHCs). This system is described in detail, with its administrative and structural features, in Annex 1. Particular emphasis was placed on the control of communicable diseases and family planning. Alongside, conscious efforts were made to develop world-class medical training and research institutions and teaching hospitals, first in four major cities, but gradually in the rest of urban India.

1.6 Under the Indian Constitution, the primary responsibility for the public provision of health care rests with the state governments. The center plays a limited, though important, role. The states differ vastly in their socio-economic development, disease and morbidity patterns, ability to raise resources and invest in health care, and managerial capacity to coordinate and administer programs. Recognizing both the socio-economic differences across the states and the national importance of improving the population's health, the central government has assumed an active role. The center provides financial transfers, institutes and financially supports vertical disease control programs and family welfare programs. By influencing strategic choices in the provision of health care, the center has the potential to complement strongly the states' efforts.

B. Progress in Health

1.7 Considerable progress has indeed been made. Life expectancy has risen from 32 years at the time of Independence to 57 at the close of the 1980s. Overall mortality has declined throughout the country, largely as a result of considerable decline in the infant and child mortality rates. These broad favorable trends reflect the country's real achievements not merely in controlling communicable diseases, but more generally in food production and availability, in overcoming the severity of famines, and in reducing malnutrition and hunger.

1.8 Comparison of India with other nations in the region, that started with a similar resource base several decades ago, however, shows that India has not fared as well as might have been expected. Many countries have done better, starting from a similar base, including China and Indonesia (see Table 1.1).

Table 1.1: Trends in Social Indicators, 1960-90

	Life expectancy at birth (years) 1960 1990	Gain	Under-5 mortality (per 1,000) 1960 1989	Gain	Adult literacy 1970 1985	Gain	School Enrollment (prim+sec) 1970 1987	Gain
India	44.0 59.1	34%	282 145	-49%	34 44	39%	49 66	35%
China	47.1 70.1	49%	203 43	-79%	n/a n/a		66 83	26%
Indonesia	41.2 61.5	49%	225 100	-56%	54 72	33%	49 84	71%
Developing countries	46.2 62.8	36%	233 116	-50%	46 60	30%	55 70	27%

Source: Ravallion and Subbarao (1992)

Table 1.2: Comparison of Health Indicators for Groups of States in India

	1991 POPULATION (million)	1988 INCOME PER CAPITA (current Rs.)	1986-91 FEMALE LEB (years)	1989 RURAL IMR (per 1,000)	1989 URBAN IMR (per 1,000)
KERALA	29	2598	71.1	23	15
UPPER 8	391	3291	61.9	81	52
LOWER 6	389	2213	53.9	114	70
ALL INDIA	844	3835	59.1	98	58

Note: States are categorized basis on their Infant Mortality Rates.
LEB - Life Expectancy at Birth
IMR - Infant Mortality Rate

Upper 8 (IMR < 90 per 1,000) = Andhra Pradesh, Gujarat, Haryana, Karnataka, Maharashtra, Punjab, Tamil Nadu and West Bengal

Lower 6 (IMR > 90 per 1,000) = Assam, Bihar, Madhya Pradesh, Orissa, Rajasthan and Uttar Pradesh

Source: Calculated from Health Information India, 1990 and 1991 Census

1.9 The broad aggregates hide large disparities within India. Nearly half of the population, living in eight of the 15 major states, has health indicators that approach those of countries widely believed to be far better off than India. With a per capita annual income in 1988 of more than Rs. 3,000, these better off states have an infant mortality rate (IMR) of about 72 per 1,000, and a female life expectancy at birth of nearly 62 years (Table 1.2). These states have benefitted most from the country's social and economic development, and from the investments made in development of the public health sector.

1.10 The population of Kerala, which stands out dramatically from the rest of India in terms of social development, has health indicators that far surpass those in other states, and in most other countries of the world. With a per capita income of just over Rs. 2,500 in 1988, Kerala has lowered its IMR in rural areas to 23 per 1,000, and in urban areas to 15 per 1,000. Women live, on average, to 71 years.

1.11 The situation is starkly worse for much of the rest of the population. In the poorest six states of the country, which also include the states with the largest populations, per capita yearly income in 1988 was about Rs. 2,000. In those states, 10 out of every 100 children born will die before reaching the age of one year; on average, women live only 58 years. These states, limited in their own internal resources and ability to raise public funds, have not benefitted as much as they might have from the efforts of the GOI in the health sector.

1.12 The outreach, efficiency and equity of India's public health care system differ vastly across the states and by rural or urban location, as do health outcomes. For example, the infant mortality rate in urban India in 1989 was 58 deaths per 1,000 live births, while the corresponding rural rate was 198.

1.13 Disparities in health go beyond those associated with region. The most stark disparity is that between the sexes. As seen in almost every health indicator, women are at a pronounced disadvantage. India is among the seven countries in the world which record a lower life expectancy for women than for men, and the public health care system has been unable to target health and nutrition interventions to overcome the pervasive societal inequities that discriminate against women. Health indicators and the reach of the public health care system, also differ considerably across social classes. Among the historically disadvantaged scheduled castes and scheduled tribes, infant mortality is markedly higher than for others, in both rural and urban India.

1.14 In the face of both the progress that has been made in much of the population, and the disparities that still remain between the advantaged and the disadvantaged groups, the policy question is: How can the health system's organization and financing facilitate the sector's ability to "close the gap" by bringing the standards of health care and health outcomes in the poor states up to an acceptable minimum? How to raise the standard of health care targeted to the poor and how to increase their access serve as guiding questions for this report.

C. Changing Patterns of Disease and Causes of Mortality

1.15 The 1980s saw much attention being given to infant and child mortality control programs in India and elsewhere. A major national-level program (the Integrated Child Development Services) was introduced to combat important diseases via immunizations, oral rehydration therapy, and nutrition supplementation. These are either fully or partially centrally-funded. External agencies are active in supporting these programs. Women's reproductive health also received support, albeit in a limited way, through the maternal health components of the family welfare program.

1.16 By far the most important programs addressed by central funding are the vertical programs to combat communicable diseases. Most of these programs are either fully or partially centrally-funded. There are interesting trends in the incidence and severity of these diseases. Tuberculosis is known to be rising through the mid-1980s in incidence but declining in terms of fatality rate (Srinivasan, 1992). Forty years of a national program has only barely abated its severity but not substantially reduced its incidence, largely due to unsuccessful preventive care which, in the long run, may place a greater burden on curative services. Malaria cases remained stable over the 1980s, increasing in recent years. Current efforts seem inadequate relative to needs. Leprosy cases have reduced by over one-third during the 1980s.

1.17 Other important communicable diseases are kala-azar, encephalitis and meningitis. From a public health stand point, urgent action is needed, but adequate resources are not mustered to control of these diseases. Considering that the incidence of these diseases is greater in poor states such as Bihar and Uttar Pradesh, it is particularly hard to exercise spending choices across a variety of competing demands when resources are shrinking.

1.18 Cardiovascular diseases and cancers are rising as a proportion of all deaths reflecting the epidemiological transition which is now underway. Their treatment places exceptional burden on the public hospital system, and increases the potential of the rich, urban elite to lobby for more budgetary allocations. The emergence of AIDS will further encroach upon resources in the future.

1.19 In sum, recent evidence suggests that overall progress made in controlling the major communicable diseases is impressive. The very gains in life expectancy, however, have resulted in increases in mortality from chronic and degenerative diseases of adulthood, and in "life style" related diseases (e.g., heart ailments). These trends are likely to persist, and will most likely be complicated further by the onslaught of AIDS

and environmental health hazards. Three trends are clear: (1) the poor and the deprived classes continue to suffer from life threatening communicable diseases such as TB; (2) the middle class and the affluent are likely to suffer from "life style" diseases; and (3) AIDS and environmental hazards are likely to hit everyone. These transitions raise important issues of resource allocation across competing demands. They add urgency and perspective to the task of examining how the government can gain the most from every spending decision.

D. Public and Private Spending on Health Care

1.20 How much does India spend on the social sectors and on health care? How has central funding fared in recent years?

Public Spending

1.21 India spends close to 6 percent of GDP on the social sectors. The share of health and family welfare in the total social sectors was about 20 percent in 1990/91.

1.22 The central plan expenditure on health (excluding family welfare, water and sanitation) steadily declined from 0.08 percent of GDP in 1985-86 to 0.05 percent of GDP by 1991/92 (according to revised budget estimates); in the Budget Estimate it further falls to 0.04 percent of GDP (projected). Clearly, plan expenditures on direct public health programs have been declining, so that in real terms the expenditure in 1991/92 was less than in 1985/86. The central non-plan spending on direct public health ranged about 0.03 to 0.04 percent of GDP since 1985-86. The share of water supply and sanitation in plan spending was erratic, but ranged between 0.14 to 0.10 percent of GDP; the latest budget estimate for 1992/93 shows a sharp fall compared to the previous year. By contrast, the share as well as the real amount of funding for family welfare has steadily increased.

1.23 The plan spending by the states on health and family planning fell from 0.37 percent of GDP in 1985/86 to 0.33 of GDP in 1989/90. The non-plan spending by the states on health and family welfare ranged around 0.65 percent of GDP since 1985-86.

1.24 Taken together, the center and states' plan spending on basic health has declined in the recent past. If all resources of the center and the states, plan and non-plan, are added, it amounts to no more than 1 percent of GDP for basic health care. If water, sanitation and family welfare are added, it would be about 1.6 percent of GDP in 1990/91.

1.25 It is worth stressing that India's public spending on health is no less than the developing country average. In fact, it is slightly more than that of both China and Indonesia, countries with significantly much better health outcomes than India. Clearly, public spending per se is no panacea for better health; how money is spent by Indian government(s) appears as important as how much money is spent. This is especially the case in the prevailing context of fiscal contraction.

Private Spending

1.26 Contrary to popular perceptions, the poor are spending more than Rs. 150 per head per annum on health care in India, whereas the public sources amounted to only Rs. 75[1]. This by itself demonstrates that the original intention of planners, viz., to provide free health care to all has not been realized. Moreover, it also suggests that the poor as well as the rich are in fact spending considerable amounts on private provision of health care. Assuming an annual spending Rs. 150 per annum by the bottom deciles, private spending on health amounts to 3 percent of poverty threshold income per head.

E. Resource Constraints and Choices in Health Case Provision.

1.27 Impressive as India's gains have been in creating a health system, and bringing about significant improvement in living conditions, there is much to be done. The overall modest level of public resources going to basic health care, the sluggish response of the system (in terms of health outcomes) to public spending, and the observed inequitable distribution of benefits from public health, clearly suggest the need for improved allocation of resources to the health sector, and within the sector itself. Within the sector, systemic constraints are intertwined with issues of resource allocation among competing demands: (a) primary health care versus hospitals; (b) rural versus urban; and (c) vertical disease control programs versus basic curative services, for example.

1.28 The system is being stretched beyond fiscally sustainable levels as it seeks to provide free services and medical education with little internal resource mobilization, alongside expanding primary health services, direct disease control programs and family welfare activities. Given the resource constraint following fiscal contraction, the provision of health care can no longer be divorced from its financing. More than ever, the government is

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[1] It must be noted that information on annual per capita private spending is limited, so all figures presented on individuals' health expenditures are estimates based on incomplete data. Information on the public sector, on the other hand, is both reasonably complete and of good quality.

faced with difficult choices in the health sector -- but also with the opportunity to reorient spending priorities to reflect those which will provide the most people, and especially the most disadvantaged populations, with the greatest benefits.

1.29 Any discussion of measures to bring about a more efficient and equitable use of resources in health care must be based on a detailed assessment of the recent trends in plan and non-plan spending in the central government and across the states. It must also include an assessment of the pattern and severity of diseases and morbidity prevailing in the states and among distinct populations. The following two chapters address these issues.

II: SPENDING IN THE HEALTH SECTOR: WHAT POTENTIAL TO REDUCE INEQUITIES?

2.1 This chapter reviews health spending in India, including overall spending on health, trends in public sector expenditures over time, and the distribution of public spending across programs. It also addresses some important issues in expenditure policy.

A. Overall Spending on Health: Public and Private Sources

2.2 Table 2.1 displays mission estimates of total spending on health services in India for 1990/91, the most recent year for which estimates of the components are available. Overall spending, at about 6.0 percent of GDP, is quite high for a country as poor as India. Other estimates of health spending in India all for much earlier periods, ranging from 1982/83 to 1986-87, have ranged from 2.9 to 8.3 percent of GDP. One analyst distills from these studies, as a "best guess" that about 5.5 percent of GDP was devoted to health in the mid-eighties, or about US$16 per capita at the time (Berman 1992).

2.3 Using the mission estimate, annual per capita spending in the early 1990s was Rs. 330, about US$13.20, which is substantially lower than in earlier years when the exchange rate was more favorable. Private out-of-pocket spending dominates this estimate, accounting for about 75 percent of the total. Government spending accounts for the next largest share, with states accounting for 19 percent and the central government accounting for about 2 percent of the total. Local governments and external assistance accounted for an estimated 1 percent of the total. Third party payment systems are in their infancy in India and account for the remaining 3 percent.

Table 2.1 Estimate of Total Spending on Health from All Sources, 1990-91, in Rupees per Capita

	Per Capita Estimate	Share of Total	Share of GDP
PUBLIC SECTOR			
Center	6.6	2.1%	0.1%
States	59.3	18.6%	1.1%
Municipalities	1.5	0.5%	0.0%
External Assistance	1.4	0.5%	0.0%
Sub-total Public	68.8	21.5%	1.3%
PRIVATE			
Out-of-Pocket	240.0	75.2%	4.5%
Third Party			0.0%
ESIS	2.4	0.8%	0.0%
Various Gov't Schemes	4.3	1.4%	0.1%
Private Employers	3.8	1.2%	0.1%
Sub-total Private	250.5	78.5%	4.7%
TOTAL	319.3	100.0%	6.0%

Source: Mission estimates

As will be explained, this high level of private expenditure is not necessarily a desirable feature.

2.4 The 1990 NCAER national survey of household expenditures, on which the private spending estimate above is based, found that the poorest 40 percent of rural household spent an average Rs. 157 per illness episode when receiving care from government doctors and Rs. 131 when purchasing care from private doctors. The richer 60 percent of the rural population paid less for government doctors, Rs. 137 and more for private doctors, Rs. 215. The overall average of spending per illness, no matter which source of care was used, was Rs. 139 for the rural poor and Rs. 195 for the rural non-poor. Expenditures per visit were actually lower on average for the urban population (NCAER, 1992). The 42nd round of the NSS survey, completed in 1987, estimated the average amount paid for treatment when using government facilities by rural residents was Rs. 115; for private providers, it was Rs. 85. In cities, spending related to government care cost less, at Rs. 103; private was higher at Rs. 91. Although the absolute size of spending varies between the two surveys, the spending patterns are similar.

2.5 These data have several important implications for policy under adjustment and for health sector policy over the longer term:

(a) Private out-of-pocket spending is probably too high a share of the total. This may be a surprising conclusion, but in a country where people suffer from preventable illnesses, it is entirely possible that higher government spending, carefully targeted to health problems with high externalities, could markedly reduce private out-of-pocket spending. High spending on private health services by the poor is an indication that the government system is not delivering low-cost or free care effectively. Improved funding and management of primary health care services should be reflected in lower out-of-pocket spending by clients of government services. Attention by government to changing spending priorities to address these problems during adjustment would result in a safety net for those whose ability to purchase care from the private sector becomes constrained temporarily.

(b) Finally, even if nothing is done about these two problems, a high share of private spending is indicative of a relatively high incidence of economic catastrophe for households because of health care emergencies. A larger share of spending through third-party payers would mean that the institutional mechanisms had been developed to help households share these risks. Clearly these institutions do not exist. They merit longer-term attention by governments.

(c) Out-of-pocket expenditures are a greater burden on the poor. When the poorer 40 percent of the population pay as much or more on health care than the other 60 percent, clearly they are paying out a significantly higher percentage of their incomes on health care. Those who are least able to pay are bearing the largest burden. The household surveys cited above indicate that medical care is second only to dowry as a cause of indebtedness for rural populations. Under structural adjustment, the incomes of the rural poor may be affected relatively little (but perhaps for the large share of landless), but the urban poor are likely to suffer. It is the urban poor who may be the first to drop out of making private sector purchases. But the evidence shows that they will save little or no money by choosing government services, which carry transaction and other costs. Protecting the poor under adjustment requires immediate attention to this problem.

(d) Central government spending on health is small. In 1991, before transfers to the states, the central government controlled about 56 percent of all government spending and about 17 percent of GDP (Ravishankar estimates for the mission, 1992). It spent about 0.5 percent of this amount on health (and another 0.7 percent on family welfare). Playing such a small role in the health sector, the central government is virtually incapable of affecting the mix of spending in Table 2.1 for better or worse. However, it has a potentially important role to play in constructing a social safety net for the poor in the health sector, for developing strategies to reduce the burden of illness on households, and for developing institutions to share risks. There could be considerable payoffs in the short and long terms to a more activist, policy-oriented approach to the health sector by the central government, concentrating on the externalities that can spread benefits broadly.

2.6 The remainder of this chapter concentrates on both the central and states' roles in the health sector as indicated by spending patterns.

B. Government Spending: Definitions and Constitutional Constraints[1/]

2.7 India accounts for government spending using two different types of budgets. The *plan* budget contains spending for new programs associated with the current Five-Year Plan. This budget contains both recurrent and capital spending, including virtually all capital spending. The *non-plan* budget finances regular government operations, including programs that have moved out of the plan budget and into the regular appropriations process. Typically, the non-plan budget contains no capital spending, although there are minor exceptions to this generalization.

2.8 The Central Government, the States and the Union Territories employ this accounting practice. The practice also has some policy significance, because the center has almost no independent ability to carry out programs based on current expenditure in the states. The center typically uses projects in the plan budget to accomplish this end, in negotiation with the states. The center funds all or part of such projects, with the states administering them. These projects are of three types: (a) temporary projects that are completely funded from the center and are expected to be absorbed completely by the states in their non-plan budgets; (b) temporary projects that require both central and state contributions and are also intended

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1/ See Appendix 2 for a more detailed discussion of the budgeting process.

to be absorbed by the states; and (c) projects that fall into one of these two categories but have become permanent parts of the plan budget. The prime example of the latter is the family welfare program, 100 percent funded by the center. Some vertical disease programs are funded by a combination of state and center spending, typically 50 percent funded by the center (in the sense that each rupee allocated by the center must be matched by the state, with no ceiling on other state contributions but with a fixed limit on the central contribution). Others, such as kala azar, are funded completely by the center.

2.9 In a formal sense, health service delivery is primarily a state responsibility in India. In the constitution, the State List includes public health, hospitals, dispensaries, and so on. The constitution assigns very few of these tasks exclusively to the center through the Union List, except in the case of administration of Union Territories without legislatures. Most of the center's functions are shared with states under the Concurrent List, including population control, medical education, vital statistics, and health sector regulation. The center is also charged with developing broad policies, technical assistance to states, and implementation of important national health programs. In practice, many of these distinctions are blurred, and the center has found ways to carry out programs through negotiation with the states that do not precisely fit into these categories.

2.10 The national Department of Health focuses most of its health activities on a number of national hospitals and research institutions, health services for central civil servants, medical education, and health care in the centrally administered territories. Family planning and vertical disease programs have also received considerable attention from the center. National policy development is accomplished through the Central Council of Health, but relatively few resources are devoted to the tasks of data collection, analysis, and policy development.

C. Historical Overview of Public Spending

Plan Expenditure, 1951-1993

2.11 Figure 2.1 shows plan total, center and state expenditure over the period from 1950/51 to 1992/93. The separate family welfare program, which is, even today, almost exclusively a family planning program with minor expenditures on maternal and child health (MCH), accounts for a barely perceptible share of expenditures until the second plan, from 1956/61. Health and family welfare have consumed a fairly steady 3 to 3.5 percent of plan budgets over the 40-year period, with family welfare growing at the expense of health. The result is a persistently declining share of plan

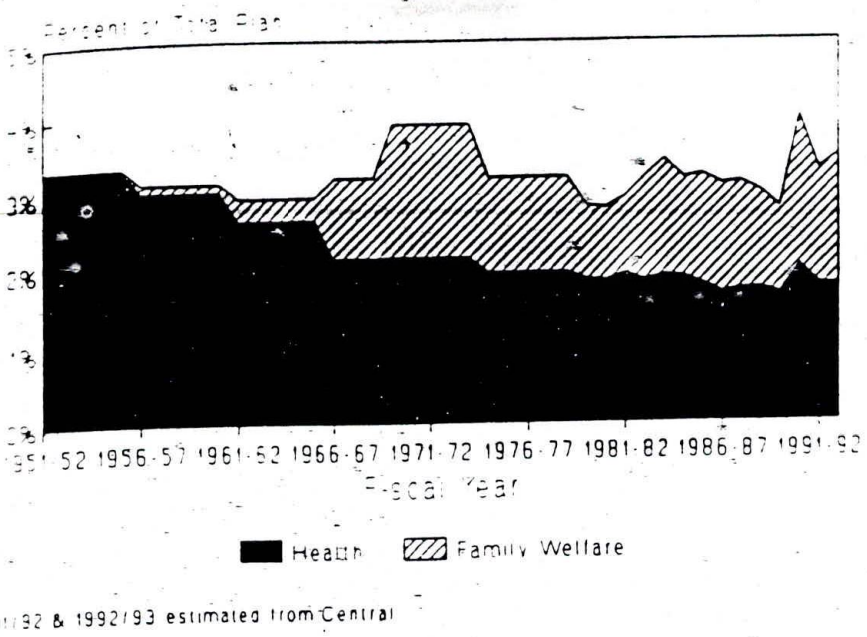

Figure 2.1. Trend in Plan Expenditures for Health and Family Welfare, 1951-92.

expenditures for health over the entire 40 year period. There is a decline for health with each plan period, which is clear by the steps in the graph.

2.12 By 1991-92, family welfare matched health as a proportion of total national plan spending, but that is only because of considerable state allocations for health.

2.13 Considering the budget at the center, alone, family welfare is approximately three times larger than health in the plan budget. In 1990/91, external assistance supported 28 percent of expenditure for family welfare, which is substantially higher than in previous years and may correspond to a lower domestic fiscal effort for family planning than is reflected in the graph.[1/]

[1/] The source for 1950/51 through 1989/90 is Central Bureau of Health Intelligence, Health Information India - 1990. The source for 1990/91 and estimates for 1991/92 and 1992/93 is World Bank estimates by V.J. Ravishankar. For 1991/92 and 1992/93, state contributions are assumed to remain the same as in the previous year, and the changes in the graph reflect only changes in the central allocation. State estimates are not available for these two years. The graph looks like a step function up to 1980 because each year up to that point represents the annual average for the plan.

Overall Public Sector Spending, 1951/1990

2.14 Figure 2.2 illustrates total, center plus state recurrent and capital spending on health and family welfare from combined plan and non-plan budgets over the seven plan periods. Comparison of Figure 2.1 and Figure 2.2 shows that family welfare accounts for a much smaller proportion of overall spending than of plan spending, which is due to the fact that it is primarily funded from the center through the plan budget (also see footnote 3).

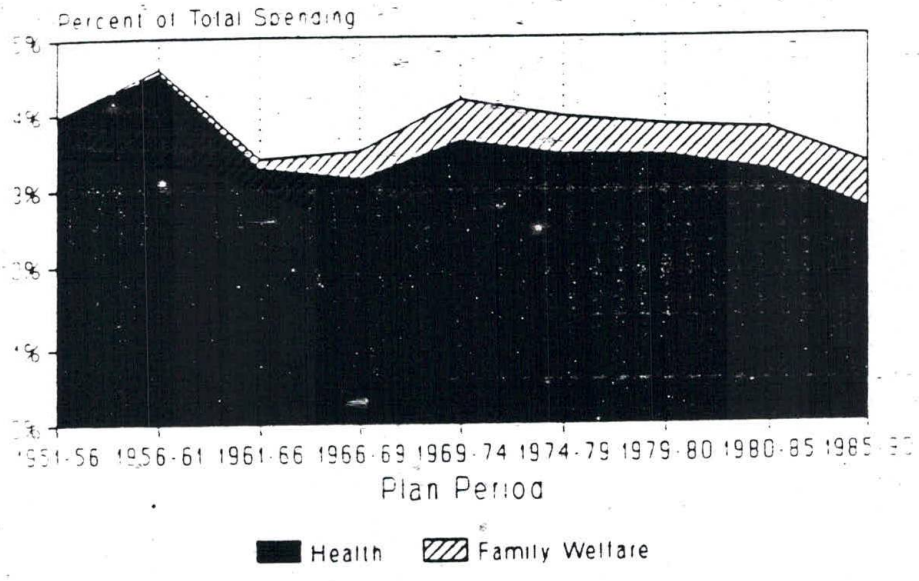

Figure 2.2. Trend in Total Central and State Expenditures for Health and Family Planning, 1951-90.

2.15 The picture of health and family welfare spending that emerges from Figure 2.2 is of a long-term decline in the proportion of total center and state spending budgeted to the two programs. Since the Fourth Plan period, 1969-74, health has accounted for 3.29 percent of total government spending; family welfare has accounted for 0.51 percent.

2.16 However, health has fallen steadily as a proportion of spending until, by the Seventh Plan, it accounted for an estimated average of only 2.7 percent of spending, by far its lowest share in India's history. Family

welfare has, in contrast, crept higher as a share of total expenditure over the plan periods, ending up as 0.60 of total spending in the most recent plan.[1]

Growth in Public Spending[2]

2.17 Has the secular decline in health spending as a proportion of both plan and total spending translated into lower real spending? The presumption must be that growth in the economy and government budgets would have resulted in an increase in spending despite the decline in share, and this is the case. From 1975 to 1989, states' spending on health (medical and public health) at constant prices rose by 6.2 percent per year, compared to an 8.4 percent increase in overall state spending. State spending on family welfare rose by 10.2 percent annually. Over the same period, central spending on health rose by 5.8 percent annually, compared to 8.2 percent for overall spending. The center's contribution for family welfare rose by an average of 10.0 percent annually, apparently reflecting a high priority for family welfare. Thus the decline in share of public spending on health occurred as real spending on health increased (rising, however, at a slower rate than overall spending). The slower rate of increase at the center resulted in a shift in spending toward the states.

2.18 There are two distinct periods that merit discussion. Most of the growth in both state and center spending on health occurred in the 1970s. During the second half of the 1970s, state spending on health rose by 9.8 percent; for the center, the rate was 13.9 percent. For the 1980s, the annual increase in state spending on health was about 4 percent; in center spending, only 0.8 percent. The opposite trend is apparent in family welfare spending, with faster growth rates in the 1980s. State spending on family welfare rose by an average of 7.2 percent and center spending, by 4.7 percent from 1975 to 1981. Both took off in the 1980s, with state spending rising by 12 percent per annum and center spending rising by almost 14 percent.

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[1] The numbers underlying Figure 2.2 were calculated from Duggal, 1992, Table 11. Duggal does not disaggregate health from family welfare nor does he include totals for the Seventh Plan. Here are health and family welfare disaggregated by assuming that all family welfare spending was contained in the plan budget and subtracting this amount from Duggal's figures to get total health spending. This technique may understate family welfare spending by 3 to 5 percent, but the total of health and family welfare is correct. As for estimating Seventh Plan spending, non-plan spending averaged about 40 percent of total spending since 1951. Plan spending for the Seventh Plan is known and can be assumed to be about 40 percent of total spending, which gives an estimate of total spending for that period. Actual spending on health and family welfare is available for all but the last year of the Seventh Plan. The final year was estimated by adding the average percentage increase to the previous year. For the Seventh Plan, annual spending comes from tables produced by Dr. V. B. Tulasidhar for this mission.

[2] This section is based on V. B. Tulasidhar, "State Financing of Health Care in India: Some Recent Trends," National Institute of Public Finance and Policy, New Delhi, March 1992.

2.19 Shifting attention to per capita spending, the net result of factoring in population growth is that real per capita spending on health increased annually over the fifteen-year period by 4.38 percent for states, 3.48 percent for the center, and 4.25 overall. For family welfare, the increases were 7.8 percent by states, 7.6 percent by the center, and 7.8 percent overall.

2.20 At constant 1988/89 prices, average per capita expenditure on health by the states was Rs. 37.38 over the period 1986/89, about 50 percent higher than in 1974/78. Spending on family welfare was Rs. 8.29 per capita, about 100 percent higher than the 1974/78 level. Central spending per capita is not available for the same period.

2.21 The share of national GDP devoted to health through central and state governments was 0.97 over the period 1986/90. An additional 0.25 percent was spent on family welfare.

Conclusions

2.22 Highlights include the following characteristics of public spending on health and family welfare:

(a) Constant overall share of *plan* spending. Health and family welfare together have accounted for 3 to 4 percent of plan spending for four decades.

(b) Declining share of health in *plan* spending. Increases in family welfare spending within this ceiling of 3 to 4 percent for both programs has resulted in a decline in health spending from over 3 percent of plan expenditures in the First Plan to less than 2 percent in the Seventh Plan.

(c) A fairly constant share of *overall* government spending. Health and family welfare have accounted for 3-4 percent of overall government spending.

(d) A drop in the share of *overall* spending since 1985. Health and family welfare experienced a clear decline in share of overall spending during the Seventh Plan, attributable almost completely to cuts in health spending.

(e) Rising real per capita spending. Despite these declines in share, real per capita spending on both health and family welfare has risen since 1975.

(f) Smaller increases in health spending in the 1980s. Although increases in real family welfare spending have accelerated during the 1980s, increases in health spending have slowed markedly. Increases by the center have not even kept up with population growth. The center has not maintained the leverage over health spending that it had in the past.

D. Government Spending on Health in 1991-92

2.23 This section discusses the allocation of recurrent spending by the center (plan and non-plan) to all expenditure categories for the most recent year for which data are available, 1991/92. The first section includes all spending, but subsequent sections focus on recurrent health expenditure only.

Table 2.2. Total Amount and Distribution of Current Central and State Budgets, 1991/92, in Crores.

	Central 1991-92		State 1991-92		All-India 1991-92		Shares	
	Amount	Percent	Amount	Percent	Amount	Percent	Central	State
Hospitals	56.9	3.6	1792.1	42.4	1849.0	31.7	3.1	96.9
PHCs & Dispensaries	0.0	0.0	794.7	18.8	794.7	13.6	0.0	100.0
Central Government Health Scheme	76.3	4.8			76.3	1.3	100.0	0.0
Employees State Insurance System	0.0	0.0	341.8	8.1	341.8	5.9	0.0	100.0
Education & Research	212.0	13.3	296.1	7.0	508.1	8.7	41.7	58.3
Administration	9.6	0.6	76.9	1.8	86.5	1.5	11.1	88.9
Public Health	197.9	12.4	678.5	16.0	876.4	15.0	22.6	77.4
Other	7.0	0.4	57.0	1.3	64.0	1.1	10.9	89.1
Capital (Health)	185.7	11.6	188.0	4.4	373.7	6.4	49.7	50.3
Family Planning	736.4	46.1	2.5	0.1	738.8	12.7	99.7	0.3
MCH/EPI	114.6	7.2	0.4	0.0	114.9	2.0	99.7	0.3
Total	1596.3	100.0	4227.9	100.0	5824.3	100.0	27.4	72.6

Source: Mission estimates based on MOHFW Performance Budget 1991-92, additional tables on states budgets by Dr. V.B. Tulasidhar, tables by Ravishankar produced for the mission, and Tulasidhar (1992).

Note: Family Planning includes both recurrent and capital spending.

2.24 Table 2.2 displays mission estimates for Department of Health budgets at both the central and state level for fiscal year 1991-92.[1/] The bottom line shows total spending by the center and the states. The figure of Rs. 5,824 crore is about 0.96 percent of estimated GDP and Rs. 69.0 per capita. It is not possible to calculate the percentages of state budgets devoted to health and family welfare in 1991-92, but they averaged about 6.8 percent of state revenue expenditure over the period 1986/89 (Tulasidhar 1992); there is no reason to expect that it would have changed much.

2.25 In 1991-92, the center contributed 1.5 percent of budgeted spending to health and family welfare. The all-India total comprises 27 percent by the center and 73 percent by the states.

2.26 Two items will be netted out of the budgets when discussing the distribution of spending below. First to be excluded will be capital spending for health, which accounted for 6.4 percent of overall spending. It was shared about equally between the center and the states. Family welfare is also eliminated, which includes family planning and MCH/EPI. It accounted for about 15 percent of all-India spending and 53 percent of center spending. Dropping these two programs from the discussion, eliminates an extraordinary 65 percent of the center budget, but only 4.5 percent of state budgets. Capital spending for health and family welfare spending together amount to 21 percent of all-India spending.

2.27 The remaining amount, which is recurrent health spending, was 0.76 of GDP in 1991/2 and Rs. 55 per capita. It was financed 12 percent from the center and 88 percent from the states.

2.28 This procedure identifies one of the major themes of this report: that the center pays relatively little attention to health. It has too little leverage over health spending or health priorities in the country. The amount the central government spends on recurrent costs for the DOH was only 0.5 percent of total center spending in 1991/92. This is an underlying reason for the lack of support for health facilities. Furthermore, this low spending translates into little leverage over all-India health spending, as the center accounts for only 12 percent of recurrent spending. When the distribution of spending is discussed below, it will become clear that the 12 percent figure

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[1/] The data have apparently not been collected in this format before. Two caveats are in order. First, these are only budgeted amounts, not revised or actual figures. Second, state budget figures was available for 13 of the largest 15 states, and an adjustment was made to scale their spending up to the whole country. This adjustment affects the total amount estimated for the states and therefore the share between center and state, but not the distribution across programs. Grants to states under the plan budget have been allocated to Public Health and Education and Research in the center budget, and they have been netted out of state spending.

actually overstates the amount of leverage. Yet in many ways the states still look to the center for a lead.

Distribution of Recurrent Health Expenditure by Program -- Central

2.29 Figure 2.3 shows the distribution of central government recurrent spending for the 35 percent of the MoHFW's budget going to current health spending for 1990/91. Little distortion is introduced by using this single recent year because spending patterns have changed only incrementally over the past five years. The largest program at the center is medical education and research. It absorbs 38 percent of current spending. Public health ranks second; this mainly involves grants to the states, which involve 70 percent of spending. The remaining 30 percent remains at the center to support central institutions with a role in the control of diseases, such as national institutes for various communicable diseases, a prevention-of-food-adulteration unit, public health laboratories, and so on.

2.30 The third most important program is the 17 percent allocated to the Central Government Health Services (CGHS), to provide medical services to central government employees.[1/] Central hospitals receive 10 percent of the budget. From analysis of the budget, them, the DOH has four basic functions: (a) educating physicians; (b) operating large national hospitals and research centers; (c) providing primary medical care to central government employees; and (d) supporting public health activities in the states.

2.31 Only about one fourth of the central DOH budget creates a significant interaction with the states, that portion provided to states for public health spending. In other words, that portion of central spending on health that carries with it some leverage over state and local priorities is limited to 4 percent, not the full 12 percent.

2.32 Of course, this statement disregards non-budgetary ways that the center can influence the states, which may be important in subtle aspects of health policy, but the center is indeed quite constrained in terms of budget to influence spending priorities at the state level. Similarly, it is extremely limited in its ability to counter interstate inequalities or to address other important equity problems.

[1/] In 1990/91, this scheme cost Rs. 822 per cardholder and Rs. 183 per beneficiary. It runs a total of 314 clinic-type units, spending about Rs. 2,232,000 per unit in 1990/91. Some reimbursed expenses for costly private sector surgeries are included in this figure.

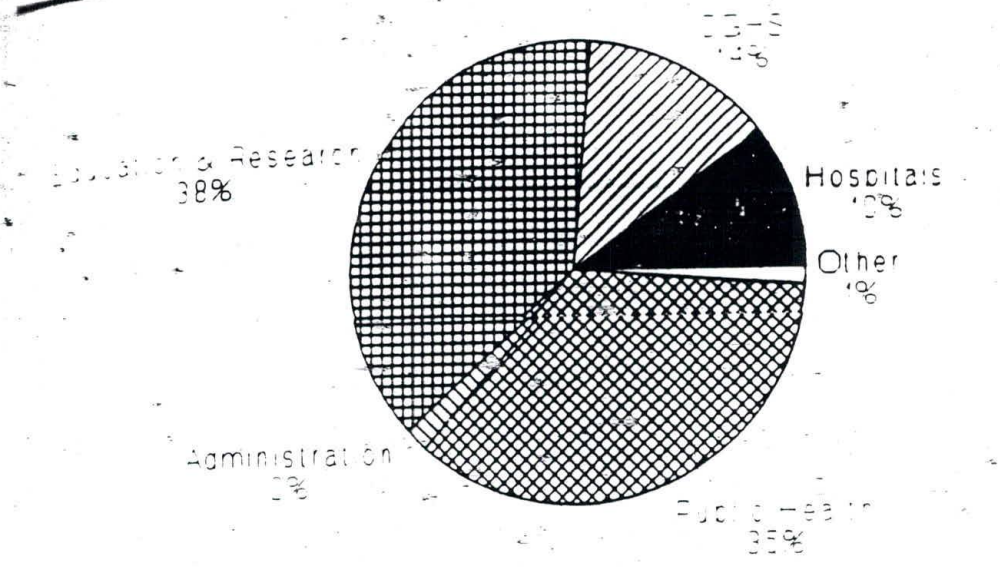

Figure 2.3. Distribution of Current Central Spending for Health, Budget Estimates 1991-92.

2.33 The health budget at the center allocates insignificant resources to the primary health care system which is supported, however, through the family welfare budget, which has a heavy emphasis upon family planning services. Indeed, nor do the states spend heavily in the HC system. ANMs, PHC and subcenter staff are all paid for by Family Welfare. The states build the facilities, but subsequently earmark no funds for maintenance. The PHCs (like hospitals) are therefore very exposed to lack of maintenance within these constraints. The center has very little room to maneuver in terms of national health policies.

Distribution of Recurrent Health Expenditure by Program – States

2.34 Figure 2.4 shows the distribution of current state health spending in Table 2.2 under the major heads. The Departments of Health at the State level are obviously much more concerned with service delivery than the central DOH. Hospitals consume the largest share of spending (44 percent) and primary care adds another 20 percent. Adding the amount devoted to public health (17 percent) exhausts just over 80 percent of spending. The states are required to contribute 12.5 percent of the Employees State Insurance System's budget, which consumes about 8 percent of state budgets. This insurance system provides health services to formal sector employees. The small remaining shares of state spending go to education and research.

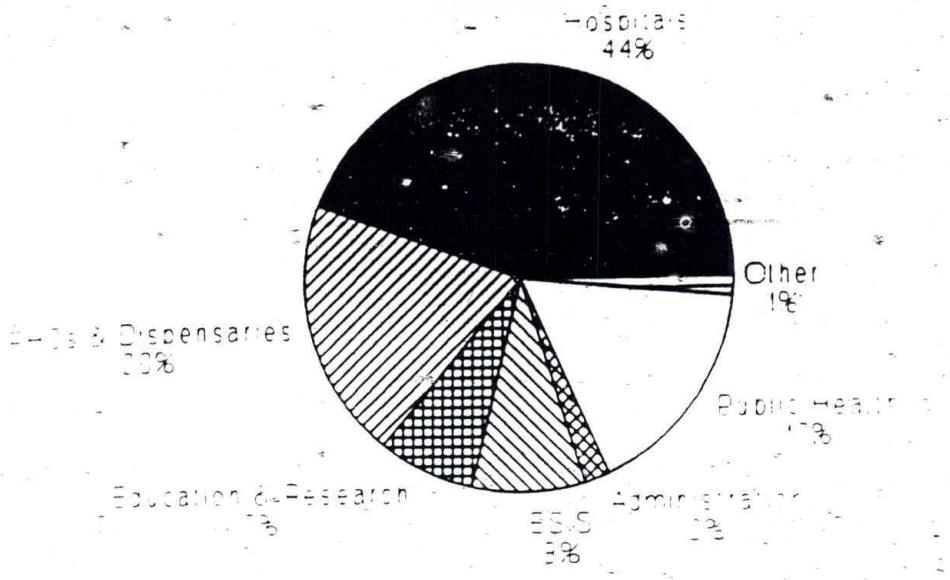

Figure 2.4. Distribution of Current State Spending for Health, Budgets for 1991-92

The All-India Picture

2.35 Finally, Figure 2.5 summarizes the total amount of spending by the major programs as well as the share of the center and the state in them. By the standards of developing countries, the overall distribution of expenditures is laudatory. Hospitals are by far the most important program, consuming 40 percent of all-India recurrent spending. This might seem excessive but, in fact, this figure is often well over 60 percent in a country at India's level of per capita income.

2.36 Public health spending runs a distant second, at about 19 percent of expenditures. In many other low-income countries, this figure is well below 10 percent. PHCs and Dispensaries account for 17 percent of spending, also a relatively high figure for low-income countries. The problem is less the distribution of spending by major head than the inefficiencies that result from the low level of current expenditures relative to the massive infrastructure that exist.

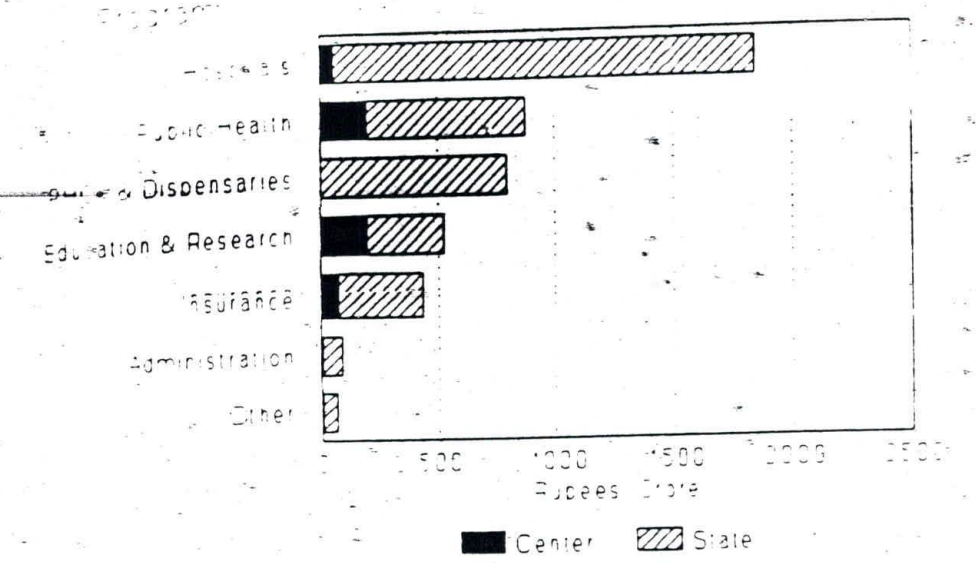

Figure 2.5. Amount of All-India Current Health Spending and Share of Center and States, 1991-92 Budget Estimates.

2.37 It is from this perspective that the level of spending about Rs. 54 per capita, less than 1 percent of GDP and less than US$2 per capita at current exchange rates is low. And it is the unsatisfactory nature, to the consumers, that explains why this low public spending takes place in an environment of high private spending. The question must, as a result, be posed, could increased public spending targeted to weaker groups in the society and to interventions with high externalities actually result in lower private spending, particularly by those low income groups and for preventable health problems?

Leverage in Communicable Disease Programs

2.38 Public health and medical education are the only two activities in which the central government plays an important role, contributing almost half of spending on medical education but less than 25 percent of public health spending. The latter is interesting and most important because the central government's spending is channeled through either 100 percent centrally financed schemes or 50/50 matching grant schemes. Here central leverage is at its most acute, and potentially the center could make a major contribution to health expenditures with demonstrable externalities. In fact, since central expenditure amounts to less than 25 percent of public health spending, patently expenditures are insufficient.

2.39 If central expenditures on these programs were adequate, one would expect to see the center account for well over 50 percent of all-India spending, which is clearly not the case. States obviously "top up" central spending. However it is the wealthy states which "top up" the public health budget, "overspending" relative to the norms suggested by the central expenditures are these shared schemes. The ability of poorer states to provide adequate public health services may depend on their own inadequate tax capacity. One or two states often fail to contribute even the matching funds, and so lose central expenditures, far from topping up public health expenditures. These are poorer states which are most in need of spending.

E. Central Budget Priorities under Adjustment: Fiscal Year 1992/93

2.40 This section considers decisions on central plan allocations for the 1992-93 budget. These decisions bring into stark relief the center's initial budgetary priorities and its beginning response to structural adjustment. We have seen above the role played by the central government in the health sector, being limited, the plan budget is its primary policy statement for the states, because within it is contained all of the center-state transfers for special and continuing projects. At the center, the plan budget accounts for 53 percent of planned outlays in 1992/93 and the non-plan 47 percent.

2.41 In budget negotiations for 1992/93, the DOH originally prepared a request for Rs. 700 crore, over twice the previous year's budget, in the expectation that there would be some restructuring in favor of health. In the face of perceived central budget difficulties, Health cut its request to the Planning Commission to Rs. 502 crore. On submission to Finance, an arbitrary reduction to 90 percent of the previous 1991/92 budget level was suggested. Negotiations within the Planning Commission restored the Health budget to the same level as the previous year: Rs. 302 crore. In fact, new funds for AIDS of Rs 58 crore from the Bank are part of this allocation, so the MoHFW was actually cut to Rs. 244. Effectively, Health's plan budget for continuing projects has been cut, in one year, by 20 percent without accounting for inflation.

2.42 This budget signals: (a) a central government decision not to target additional funds for health to help construct a social safety net as the economy is liberalized; and (b) a signal to the states that they are on their own, at least as far as health is concerned, to solve adjustment-related problems. This budget cutting process exposes priorities at the center and is the first test of the center's interest and ability to respond positively to adjustment.

2.43 How did the MoHFW react to the DOH budget cuts? Surprisingly, the biggest loser was the malaria program, which was cut 43 percent. TB, goiter, encephalitis, filaria, and guinea worm programs were also cut (see Table 2.3 and Table 2.4). Medical education and hospitals were the winners, receiving budget increases. The National Malaria Eradication Program funds multi-purpose health workers who participate in many of the vertical disease control programs, so such a large cut in that program will be felt throughout the system, all the way to the village level. To characterize the ministry's response, programs providing benefits to narrow groups of city-based beneficiaries were preserved at the cost of programs with broad externalities that strongly benefit rural areas and the poor. The ministry responded to immediate problems and potentially vocal clients rather than taking a strategic, social welfare approach to the budget cuts.

2.44 The response of the states to these cuts have yet to be seen but can be predicted. The malaria program, for example, which is operated as a matching scheme, will impose higher net costs on the states. Richer states may be able and willing to compensate. Poorer states, the very ones that should allocate more to this program, will be the least able to compensate for cuts at the center. The center is bound by fixed allocation formulas so that it cannot quickly reallocate spending to soften the blow to the poorer states. Ultimately, those who will suffer from this adjustment episode are the poorest, weakest elements of society.

2.45 Table 2.4 (a) reviews a wider selection of centrally-sponsored schemes, and shows the sharp cuts in rural drinking water (of 30 percent) and Rural Sanitation (of 47 percent). The rationale for programs that received cuts and for those that did not is unclear.

2.46 It would appear that the same central expenditure targets could have been met with less severe cuts in particular programs, had the GOI looked at the possibilities of more flexible fund sharing in family welfare.

2.47 Adjustment creates a paradox for the center. It presents an opportunity for strategic changes of direction in budgeting and planning that can result in more effective and equitable health programs. Yet this environment of change may not necessarily evoke a strategic response. Rather, the bureaucracy may respond by making across-the-board cuts or by responding to its most powerful clients and their lobbies. A mixture of these two responses occurred in the recent experience described above. Using the adjustment process to protect the weakest elements of society and to achieve the health sector's stated policy objectives in which medical education and hospitals receive low priority requires strategic thinking within the DOH and

Table 2.3 India: Department of Health Plan Expenditure, 1991/2 and 1992/3

	1991/92 Plan Budget	1992/93 Plan Budget
I. Major Disease Programs		
Malaria	53.0	50.0
Leprosy	24.0	24.0
TB	16.0	13.5
Blindness	12.8	13.5
Kala-Azar	5.0	15.0
Goiter	4.5	0.5
Encephalitis (a)	21.0	0.0
Filaria	2.5	0.0
Guinea Worm	0.6	0.0
Subtotal	149.4	116.5
II. AIDS	4.0	70.0
III. Medical Education		
All India Inst. Med. Science	12.7	14.4
Post Grad. Med. Education Inst.	10.0	13.3
Regional Inst. of Medical Educ.	1.5	0.0
Other Med. Education Institutes	4.5	5.2
Subtotal	28.6	32.9
IV. Medical Research		
Indian Council of Medical Research	25.0	20.0
Cancer Research	21.5	11.3
Other	4.9	3.5
Subtotal	51.4	24.8
V. Hospitals, Dispensries (Allopathic)	9.6	10.8
VI. Indian System of Medical and	14.3	10.9
VII. Drug Standard Control	2.5	1.3
VIII. Prevention of Food Adulteration	0.4	0.5
IX. Training of Nurses	1.1	1.3
X. Other Health Institutes	3.1	2.5
XI. Other and Administration	37.6	20.6
Total	301.9	302.0

Note: (a) 1990/91 budget included 4 crores of assistance

Table 2.4 India: Declines in Department of Health Plan Expenditure, 1991-2 and 1993, Plan and Non-Plan

	Total	Percentage Decline from Previous Year	Percent of Declines
I. Major Disease Programs			
Malaria	-32.9	-38.9	42.6
Leprosy	0.0	0.0	0.0
TB	-2.5	-15.6	3.2
Goiter	-4.0	-88.9	5.2
Encephalitis	-1.0	-100.0	1.3
Filaria	-2.5	-100.0	3.2
Guinea Worm	-0.6	-100.0	0.8
II. Medical Education			
Regional Insit. of Medical Education	-1.5	-100.0	0.8
III. Medical Research			
Indian Council of Medical Research	-4.3	-10.5	5.5
Cancer Research	-10.1	-44.3	13.1
Other	-1.2	-11.9	1.5
IV. Indian System of Medical and Homeopathic Colleges	-2.8	-10.6	3.7
V. Drug Standard Control	-1.2	-48.0	1.6
VI. Other and Administration	-12.7	-10.5	16.5

effective presentation of a strong program to the Planning Commission and the Ministry of Finance. It also requires that the DOH reverse the long term secular decline in the share of central spending allocated to it. Matching grant programs need protection. Apart from protecting matching grant schemes, adjustment also creates pressures for the introduction of flexibility: it is time to review the rigid share of center and state within each program across all states. Consideration should be given to the center making up a higher share of matching grant programs in poorer states. But most importantly, the DOH ideals cannot be realized when it accounts for such a small share of public sector spending on health. The need is to attract additional central funds to the health sector, with a decision in the MoHFW to address adjustment-related budgetary issues in a strategic manner. The need for both is urgent, but in the longer run, the MoHFW would benefit greatly from a well institutionalized and much stronger internal capability in health economics and health finance policy development.

F. Special Topics

Effects of Constrained Budgets

2.48 Distortions in Inputs to the Health Delivery System. A large share of spending by states on health services is allocated to salary support. The tendency for salaries to dwarf other inputs in the labor-intensive health sector is observed in public systems throughout the world, and this is certainly the case in India. Also universal is the difficulty of maintaining an adequate level of funding for drugs, medical equipment, and other necessary health service inputs during times of wage inflation and tight budgets. Governments rarely have much latitude to shed employees, so budget cuts almost always disproportionately reduce nonsalary inputs, such as drugs, medical supplies, fuel, and maintenance. The result is that operations become less efficient, as employees attempt to make do with less of what they require to perform their jobs. In the extreme, for example, simple physical exams may become impossible for lack of basic equipment, and physical exams are no longer done. Immunization programs may come to a halt for lack of sterile needles even though vaccines are available. Patients may find themselves required to purchase inputs in the market before coming to a public clinic or hospital, or they may be required to make several trips to the facility as they purchase the required inputs or wait for them to become available at the facility. Whatever the reaction, output drops in the public sector, patients' costs rise, and the length of time required for treatment also rises.

2.49 In the private sector, where complementary inputs are almost always available as needed, salaries usually account for well under 50 percent of total costs, usually in the range of 40 percent. In the public sector, the ratio is usually well above 50 percent; in extreme cases, salary costs have been known to account for over 90 percent of public expenditures.

2.50 Due to peculiarities of accounting procedures, it is not possible to obtain complete information on the inputs composition of health expenditures. From Performance Budgets, however, it is possible to discern the relative spending on salaries, commodities, and capital works out of the health budget. About 60 percent of the Health Department's expenditures are allocated to salary support; nearly all the rest is devoted to vehicles, office equipment, and other material inputs. Between 1987 and 1992, the relative expenditure on salary declines slightly, from 61 percent to 56 percent (Table 2.5).

Table 3.5 Input Composition of Expenditures (Revenue and Capital, Plan and Non-Plan) at Central Level, 1987-1992, Medical and Public Health Only (Excludes Family Welfare)

Input	1987-88 (RE)	1988-89 (BE)	1989-90 (RE)	1990-91 (RE)	1991-92 (BE)
Salaries	61.4%	63.1%	58.8%	58.5%	56.3%
Commodities	38.4%	36.9%	41.2%	41.5%	43.7%
Capital	0.2%	0.1%	0.0%	0.0%	0.0%
Subtotal	1,788,008	1,761,874	1,533,166	1,751,559	1,943,292
Salaries:Commodities	1.6	1.7	1.4	1.4	1.3

Source Performance Budget, Various Years

2.51 At the state level, about 66 percent of all health expenditure was devoted to salaries during the period 1985-88, the most recent period for which complete information is available. A quarter of the expenditures were allocated to the purchase of commodities (drugs, medical equipment, other supplies, and vehicles). The remaining 9 percent was invested in capital, primarily in construction of buildings.

2.52 The general trend has been toward spending on salaries and away from commodities at the state (service delivery) level. From the period 1974-78 to the period 1985-88, the proportion of expenditures allocated to salaries increased. On average over the 15 major states, in 1974-78 salaries consumed nearly twice the amount of funds as commodities; by 1985-88, that figure had risen to 2.6 times (Table 2.6).

2.53 A few states deviate from the pattern of increasing relative expenditures on salary inputs. Assam, for example, which devoted only 48 percent of its health budget to salaries in 1985-88 (the lowest share of all states), had spent relatively more in the past. Salary expenditures in Punjab also accounted for a smaller share in 1985-88 than in the earlier period. However, both were relatively high capital spenders, so it is not necessarily true that this low salary share necessarily translates into better provision of consumables than is observed in other states.

[1] Excludes grants-in-aid to states and union territories, other subsidies, and support of "other schemes/programs/organizations", which together account for nearly three-quarters of the health budget at the central level, but are reflected in state and UT allocations.

Input Composition of Medical and Public Health Total Expenditure (Revenue and Capital, Plan and Non-Plan), 1974-78 Compared to 1985-88

State	Commodities		Salaries		Capital		Salaries Commodities	
	1974-78	1985-88	1974-78	1985-88	1974-78	1985-88	1974-78	1985-88
15 Major States	31.3%	25.3%	59.0%	66.1%	9.7%	8.7%	1.9	2.6
[illegible] Pradesh	36.5%	22.5%	58.6%	74.1%	4.9%	3.4%	1.6	3.3
[illegible]	29.8%	22.5%	58.6%	48.4%	15.7%	17.1%	1.8	1.4
[illegible]	20.5%	34.5%	54.5%	74.4%	12.5%	10.9%	3.3	5.1
[illegible]	27.7%	14.7%	67.0%	68.6%	4.7%	6.9%	2.4	2.8
[illegible]	25.4%	24.6%	67.6%	73.6%	19.5%	5.3%	2.8	3.5
[illegible]	28.3%	21.1%	55.1%	65.1%	10.3%	5.8%	2.2	2.2
[illegible]	30.5%	23.0%	66.5%	71.3%	3.1%	5.7%	2.2	3.1
Madhya Pradesh	29.7%	23.3%	62.8%	70.6%	7.6%	6.1%	2.1	3.0
[illegible]shtra	31.6%	25.9%	64.1%	66.2%	4.4%	7.9%	2.0	2.6
[illegible]	26.8%	14.4%	70.7%	80.9%	2.5%	4.7%	2.6	5.6
Punjab	21.5%	29.1%	64.4%	59.6%	14.1%	11.2%	3.0	2.0
Rajasthan	30.2%	19.4%	64.8%	71.0%	5.0%	9.7%	2.1	3.7
[illegible] Nadu	36.6%	27.8%	51.6%	63.0%	11.8%	9.2%	1.4	2.3
[illegible] Pradesh	33.7%	30.0%	61.4%	56.0%	4.9%	14.0%	1.8	1.9
West Bengal	34.1%	28.7%	46.1%	62.7%	19.8%	8.6%	1.4	2.2

Source: Calculated from Tulasidhar, 1992; Table 4.1 (page 78). Assumes that expenditures in "Other" category (mostly grants-in-aid to district panchayats) are allocated in the same proportion as funds spent directly by the state government. This probably underestimates the proportion devoted to salary and overestimates the proportion to commodities and capital. This information cannot be obtained at the state or national levels; it is available only in district accounts.

2.54 Notably, in three of the poorer states, the share of the health budget devoted to salaries (relative to commodities) expanded greatly between the two reference periods and is running much higher than the admirable example of Assam. In 1974/78, Bihar spent slightly more than 3 times as much on salaries as on commodities; by 1985/88, the state was spending more than 5 times as much on salaries as on drugs and equipment. In Rajasthhan, the relative allocation to salaries increased from 2 to nearly 4 times the funds devoted to commodities. In Orissa, the ratio of salaries to commodities increase from 2.6 to 5.6 over the period. Madhya Pradesh and Uttar Pradesh were able to maintain their commodity allocations at relatively high levels, in contrast to the experience of the other poor states.

2.55 In these poorer states, the lack of complimentary inputs, and in particular drugs, has reached a point close to collapse of some provision in many areas. This is developed in the next section.

2.56 Spending on Primary Health Care. A major concern that emerged from interviews in the states is that the drop in the share of public sector spending on health after 1986 that is evident in Figure 2.2 has had a deleterious effect particularly on the primary health care system. Quality of service delivered has plummeted. Table 2.7 provides some financial data to examine this issue between 1974 and 1990. This was a period of tremendous expansion of the primary health care system. The number of PHCs grew from 5,321 in 1974/78 to 15,619 in 1986/90. Rural dispensaries increased from 8,840 to 13,005.

Table 2.7: Estimate of Trends in Spending on PHCS and Rural Dispensaries, 1974-90

Year	PHC	Rural Disp	PHC+DISP	Est Pop (Mill)	Per Cap P+D Exp	Est Exp P+D (Mill)	Est Exp Per P+D
1974-78	5,321	8,840	14,161	611,899	2.89	1,768	124.877
1978-82	5,512	11,353	16,865	688,721	3.35	2,240	132.832
1982-86	6,367	12,180	18,547	727,983	3.88	2,825	152.293
1986-90	15,619	13,005	28,624	792,092	5.24	4,151	145.003

Estimation Method and Assumptions:

Number of PHCs; fur-year average; calculated from data in Health Information India 1990, Table 9.1 (page 115)

Number of rural Dispensaries: calculated from data presented in Jesani and Anantharam, Table 9 (page ix); assumes all rural dispensaries are operated by the public sector.

Estimated Population: calculated assuming exponential growth model from Census data (1971, 1981, 1991), reported in Family Welfare Yearbook, 1989-90, Table A.1 (page 92)

Per Capita Expenditures on PHCs and Rural Dispensaries: calculated from Tulasidhar, 1992 Table 3.3 (B) (page 45); Table 3.8 (A) (page 65); and Table 3.11 (page 73). Applies to all states the un weighted average for 10 major states on allocation of medical relief expenditures to PHCs and rural dispensaries (see Table 3.11 in Tulasidhar, 1992)

2.57 As a consequence of this growth, real per capita expenditures on primary health care rose from Rs. 2.89 in 1974/78 fairly steadily to Rs. 5.24, a tremendous accomplishment.

2.58 However, keeping in mind that the higher per capita expenditures were also supporting a much large service structure, do these numbers translate into higher expenditures per facility? There was substantial growth up to 1982/86, but after 1986, expenditures per facility fell by about 5 percent in real terms. However, if the salary/commodities ratios discussed in the previous section are applied to these numbers, the change in spending on non-salary inputs dropped 10 percent below the level achieved 15 years ago, in 1974-78! In contrast, real spending on salaries rose by 30 percent over the period.

2.59 Although these results are only approximations, they indicate a substantial drop in material inputs to the primary care system that has occurred since 1986. In fact, these calculations should be conservative. Lower levels of a health system usually suffer disproportionately from shortages of supplies, so that PHC facilities would be in worse shape in terms of spending on commodities than is indicated by overall averages.[1] Lack of drug supplies has reached a crisis point at PHC and SubC level. A recent national survey showed that: (a) 58 percent of PHCs and 80 percent of SubC were without antibiotics; (b) 37 percent of PHCs and 55 percent of SubCenters had no analgesics; and (c) 26 percent of PHCs and 53 percent of SubCenters had no antidiarrheal drugs (table 2.8). Even those which had these drugs were low on stocks.

2.60 Such undersupply has eroded credibility in the system amongst the population at large, and the morale of the staff. Unless remedied, under adjustment, the supply situation could deteriorate further, leading to primary health care facilities being regarded, in may villages, as an empty shell.

2.61 That it is possible, with funds supporting more determined logistics, to supply PHCs is indicated by the fact that percentages of items out of stock are low in the case of those funded and delivered through the family welfare program (including vaccines and contraceptives).

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[1] The ratios applied in the calculation are averages for the whole system, including hospitals, which are probably better supplied with commodities.

Table 2.8 Stock of General Medicines at PHCs and SubCs

Medicine	% Out of Stock or Inadequate	
	PHC	SC
Analgesics/Antipyretics	32.7%	55.2%
Antibiotics	57.5%	80.3%
Antidiarrheal	26.1%	53.3%
Antispasmodic	36.4%	
ORS	21.6%	47.2%
Antimalarial	13.3%	46.8%
Antihistamines	43.2%	
Sedatives	35.7%	84.8%
Antiasthmatics	42.2%	84.5%
Antihypertensives	48.0%	96.6%
BCG Vaccine	27.6%	
Polio Vaccine	23.1%	
DPT Vaccine	8.8%	
TT Vaccine	7.5%	
Measles Vaccine	32.2%	
IUDS	5.0%	
Oral Contraceptives	8.8%	
Nirodh Condoms	6.0%	

Persistent Inequities

2.62 Uneven Spending across States with an Unacceptable Minimum Standard. Figure 2.6 illustrates a well-known phenomenon; because states provide the bulk of public health spending, per capita spending across states tends to reflect the relative per capita income levels of the states. Thus the richer states enjoy high public per capita spending on health, despite the fact that the poorer states are more in need of higher spending. The only way to address this problem is through transfers from the center. But, because the center: (a) accounts for such a small proportion of spending; (b) has limited itself to support to states primarily through construction projects in the plan budget; and (c) formulas that govern transfers to the states, there is very little room for the center to compensate for these interstate inequities. It is a very troublesome problem that cannot be solved immediately.

2.63 The danger is that the adjustment period will exacerbate the inequities and tensions caused by this problem. Consequently, a high priority early in the adjustment period must be emergency measures to solve the problem of targeting center funds to redress these interstate inequities. A change in policy will require both more spending on health by the center and considerable flexibility in center-state relations to solve the problem. There is some urgency in this.

2.64 Spending and Gender Inequities. A serious problem for the DOH is how its resources might be used to help redress the gender-based inequities in health outcomes that are unique to South Asia. Girl babies are more likely to die than boy babies despite their inherent physical superiority. Women experience substantially higher death rates than men during their young adult years simply because they are at risk during pregnancy. Gains in life expectancy for women have come primarily in the older ages (after 40), so the improvement in overall life expectancy statistics mask these problems. The next chapter delves more deeply into these issues. The question to be posed in this chapter is what level of spending does the DOH currently target to these problems? It is clear that the DOFW targets most of its resources to women. But close inspection of those expenditures indicates that very little goes to solving women's and girl's health problems; most goes to reducing population growth. There appears to be no independent or even coordinated effort led by the DOH focused on gender inequities.

2.65 Spending and Health Inequities. The infant mortality rate (IMR), the prime aggregate measure of health status, is closely related to income (although with some exceptions, such as Kerala)(See Figure 2.7). Those states with higher health expenditures have lower infant mortality rates. Naturally, this relationship should not be treated simply. However, if there were a targeting mechanism that allowed spending to be increased where infant mortality is highest, this simple relationship could be reversed no matter how complicated the underlying determinants. It is possible that targeting a health statistic, such as infant mortality, rather than states, as would be necessary if difference in state-level per capita income were the targeting focus, would allow the center to skirt some of the restrictions in center-state budgetary rules. A program targeting poor IMR areas would have multiple benefits: it would target areas needing additional resources, it would tend to target poorer states, and it would be a vehicle for targeting gender-related health problems.

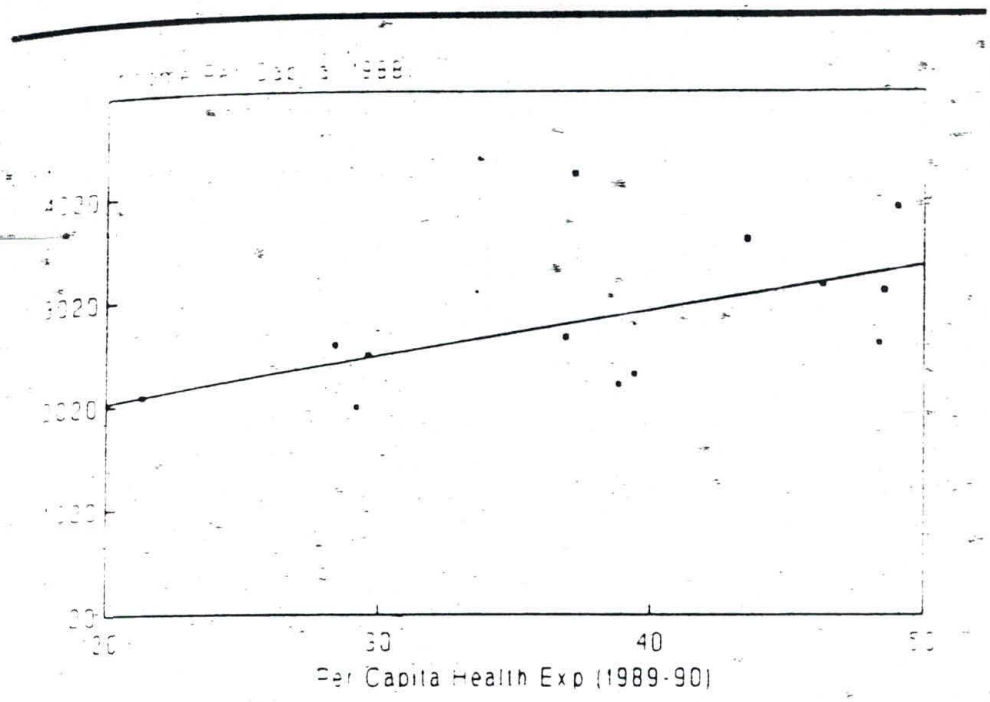

Figure 2.6 Relationship between State-Level Health Spending and Income, 1988.

Special Health Financing Problems

2.66 Negligible Role of User Fees in the Public System. Table 2.9 shows the low and declining level of cost recovery in the health sector for 15 states. In 1975/76, about 6.4 percent of expenditures on medical and public health services were recovered from clients, principally in hospitals. After a steady decline over the following 15 years, cost recovery by 1989 was only 1.6 percent of costs. This change reflects a tremendous loss of a resource for the health sector: the ability to charge patients, who can afford them, for services which have few or no externalities. Cost recovery will become much more important in the health sector if efforts are successful to reallocate public spending to programs with high externalities. Hospitals and clinics can prosper under such a reallocation if they are allowed to raise their own funds and are provided the independence to do so, while maintaining publicly subsidized access for the poor.

2.67 The Nature of Delivery of PHC Services. PHC medical care services are provided according to civil service rules. Medical staff work fixed hours, and whilst they might be "on call" outside those hours they close their facility to the public.

2.68 This, unfortunately, means that PHC facilities are open only when the rural population is at its busiest with agricultural and other work. In contrast, the private sector facilities, if available, remain open in the evening. This is when the rural population is free to attend to its medical needs. More flexible hours are needed in PHCs, to provide better service to the rural populations; this will, in turn, require more flexible budgeting and incentives.

2.69 Maintenance of the Health Infrastructure. Given the accounting methods, it is difficult, at any level higher than individual institution, to isolate the maintenance element of budgets. However, field visits make it startling clear that maintenance budgets are starkingly inadequate for all but model institutions, at all levels of health care.

Table 2.9 Cost Recovery in Medical and Public Health Services (Non-Esis)

State	1975-76	1980-81	1984-85	1988-89	Average	Amt. Recovered in '88-89 as % of 1975-76 Receipts
15 Major States	6.38	4.07	3.04	1.6	3.8	25.1
Andhra Pradesh	2.92	3.37	3.79	0.82	2.7	28.1
Assam	3.89	3.47		1.58	2.2	40.6
Bihar	16.99	8.49	3.27		7.2	0.0
Gujarat	3.65	4.99	1.9	2.58	3.3	70.7
Haryana	6.44	3.87	7.66	1.47	4.9	23.0
Karnataka	11.0	3.23	2.67	6.56	5.9	59.6
Kerala	3.8	4.12	3.72	1.55	3.3	40.8
Madhya Pradesh	4.88	2.39	6.36	2.42	4.0	49.6
Maharashtra	12.95	3.52	1.74	1.7	5.0	13.1
Orissa	2.59	3.03	4.34	1.13	2.8	43.6
Punjab	15.64	5.57	4.29	5.44	7.7	34.8
Rajasthan	3.98	3.87	2.53	0.8	2.8	20.1
Tamil Nadu	3.98	9.46	3.19	1.59	4.6	39.9
Uttar Pradesh	5.34	1.87	1.33	0.53	2.3	9.9
West Bengal	2.2	2.1	2.08	-0.78	1.4	-35.5

Source: Tulasidhar, 1992; p.85

2.70 Building maintenance budgets are based on norms that, in some acute instances, have not been revised for decades. Complexes that have expanded have maintenance budgets based on pre-expansion floor space. Often, especially in the poorer states, there are simply not enough maintenance funds to prevent buildings from leaking rain (and spoiling equipment, dosing wards) and becoming tumbledown. Maintenance budgets should be quickly enhanced to forestall huge reconstruction costs.

2.71 Negligible Role of Risk-Sharing in the Private System. Despite India's high private out-of-pocket spending on health care, there has been very little development of risk-sharing mechanisms. The ESIS is well established, but has only provided benefits tied to its own delivery system and has been slow to expand membership. Private insurance has been slow to expand for many obvious reasons. There could be a public sector role to play in this area. If policy initiatives are to be appropriately staged, the development of user fees in hospitals will be accompanied by initiatives in expanding risk sharing schemes, just as charging tuition in medical schools must be accompanied by the establishment of scholarship funds.

2.72 The States' Concern for Their Poor, and PHC Funding. Once a PHC is built, it is staffed by ANMs and other staff paid for entirely, or in part by the center through Family Welfare and other centrally sponsored schemes. The state makes little contribution, limited to doctors, if present, some drugs, and maintenance. Family welfare budget pays for ambulances, most drugs and other aspects of the infrastructure, which PHCs rely heavy upon. So most inputs to PHC come through centrally sponsored schemes.

2.73 This dissociates the states from this basic provision for their poor. They have only loose responsibilities, in practice, for aspects of monitoring and supervision. If the total responsibilities, with an appropriate budget, for PHC and SubCs were passed to the state, health provision would become more accountable to local populations.

2.74 Government Capabilities in Health Economics/Policy Development. As indicated earlier, the DOH and MOHFW as a whole have little internal capability to provide the types of inputs to policy that can be supplied by a health economics unit. As financial pressures mount and opportunities for sector change through major financing initiatives arise, the department will suffer more acutely from this vacuum.

H. Conclusions

2.75 Conclusions from the analysis are scattered throughout this chapter. Listed below are short statements of the main issues, although the list is by no means exhaustive:

(a) Decline in importance of health in the central Government;

(b) Little Capacity at the Center to Combat Inequities or Problems;

(c) Reasonable Overall Distribution of a Low Level of Spending;

(d) The First Test: An Inadequate Response to Adjustment;

(e) Persistent Inequities Demand Attention from the Center; and

(f) Primary Health System is in Trouble in Terms of Supplies of Drugs and other Consumables.

I. Recommendations

2.76 The report's major recommendations in these areas are summarized below:

(a) Raise spending at the center and target it carefully;

(b) Reassert Center's Role in Policy and Health Development;

(c) Widen Scope for Maneuver;

(d) Support recurrent spending in states;

(e) Develop equity and health-based criteria for targeting;

(f) Address gender-related health issues;

(g) Explore options to increase resources within sector; and

(h) Initiate health economics section.

Table 2.10 India: Declines in Department of Health Plan Expenditure, 1991/2 and 1992/3, Plan and Non-Plan

	Total	Percentage Decline from Previous Year	Percent of Decline
I. Major Disease Programs			
Malaria	-32.9	-38.9	42.6
Leprosy	0.0	0.0	0.0
TB	-2.5	-15.6	3.2
Goiter	-4.0	-88.9	5.2
Encephalitis	-1.0	-100.0	1.3
Filaria	-2.5	-100.0	3.2
Guinea Worm	-0.6	-100.0	0.8
III Medical Education			
Regional Inst of Medical Education	-1.5	-100.0	1.9
IV Medical Research			
Indian Council of Medical Research	-4.3	-10.5	5.5
Cancer Research	-10.1	-44.3	13.1
Other	-1.2	-11.9	1.5
VI Indian System of Medical and Homeopathic Colleges	-2.8	-10.6	3.7
VII Drug Standard Control	-1.2	-48.0	1.6
XI Other and Administration	-12.7	-10.5	16.5

III. DIFFERENTIALS IN HEALTH INDICATORS, SERVICES AND UTILIZATION

3.1 Since Independence, the state and central governments in India have taken as their responsibility the direct provision of health services to the population, regardless of ability to pay. In every plan period, both central and state governments have set ambitious goals for the development of health service infrastructure, from primary to hospital levels, and for improvements in health status, particularly of vulnerable rural populations. The government has explicitly recognized the potential of the health sector to reduce existing inequities between rich and poor, between urban and rural segments of the population. In many states, major achievements have been made in reducing mortality and morbidity, often closing the gap between the better-off and poorer segments of the population. In other states, however, differentials in health status and access to health services have persisted and even increased. Throughout the country, despite tremendous investments in building and operating the public health infrastructure, few clear relationships exist between public health service inputs and overall health outcomes.

3.2 This chapter first provides a brief overview of the India's health policy, then draws upon the available data to highlight, in turn, the key systematic variations in health indicators, access to health services (particularly public health services), and health care utilization, among and within states. Finally, it comments on underlying variation in social and economic conditions, acknowledging that these differentials both help to produce and reinforce the observed patterns.

A. Health Policy in India

Evolution of Health Policies

3.3 From the time of the 1943/46 Bhore Committee, which established the country's landmark health sector policy, to the current draft Eighth Plan, the government has stated its desire to pursue ambitious achievements in health, and acknowledged the close relationship between good health and equitable economic development. For instance, goals for the Seventh Plan, 1985/90, included lowering the IMR to 87 per 1,000 by 1990 and below 60 per 1,000 by the year 2000; increasing the proportion of pregnant women receiving antenatal care from 60 percent in 1988 to 100 percent in 2000; and decreasing the net reproduction rate from 1.34 in 1985 to 1 (replacement level) by the year 2000.

3.4 Traditionally, the government has chosen a single approach to achieving these goals: designing and creating a publicly-funded system of health services throughout the country, from primary care to hospitals, to provide both curative and preventive care (as described in Annex 1). Starting from the principle that equitable allocation of health resources means equal allocation of health facilities on a per capita basis, nationwide population-based norms were set for the distribution of health facilities and manpower. Over the past two decades, the central and state governments have invested heavily in building up this infrastructure to meet the target norms.

Principles of Free Access to Health

3.5 The principle that all citizens should have access to public services, regardless of ability to pay, has been translated into a system of financing that is based almost entirely on distribution of general tax revenues. Public health services are funded through a combination of sources, all derived almost exclusively from tax revenues at the central, state or municipal levels. In concept, public health services are provided free or at only a token charge to the population although, as shown later, both transaction and out-of-pocket costs are considerable for people seeking care at government institutions .

B. Health Status of the Indian Population

3.6 Some powerful positive trends dominate the picture of the health status of the Indian population. Overall, mortality has been declining throughout the country. Life expectancy at birth, for example, has increased from about 32 years in 1951 to about 60 years today. This trend is driven to a large extent by declining infant and child death rates. Infant mortality, for instance, declined from 129 per 1,000 live births in 1971 to 91 per 1,000 in 1989. This improvement reflects real achievements in reducing malnutrition and hunger, mounting programs for control of communicable diseases, and increasing (if slowly) general standards of living.

3.7 While mortality levels have been declining, particularly among children, communicable diseases continue to account for an estimated three-fourths of all deaths in India. In general, water- and airborne diseases (diarrhea and acute respiratory infection) account for the majority of infant and child deaths. According to official statistics, diarrheal disease accounts for a far greater share of child deaths than do immunizable diseases (measles, diphtheria, tetanus, poliomyelitis, etc.). Communicable diseases affecting adults include tuberculosis, malaria, leprosy and others.

The Communicable Disease Problem

3.8 Highlights of the importance of several communicable diseases (information is drawn from Health Information India 1990 and Krister, 1989) include:

(a) Diarrheal diseases account for 10-20 percent of infant deaths (at least 500,000-100,000 annually). On average, an Indian child suffers from three episodes of diarrhea each year, affecting his overall health and nutrition level;

(b) Tuberculosis has been called the leading public health problem of India, in terms of morbidity, health care burden and economic loss. TB has been rising through the mid-1980s in incidence though declining in case-fatality rate. Forty years of a national program may have succeeded in stemming the growth of the disease, but has not resulted in a true reduction in either incidence or prevalence. An estimated half-million or more deaths are attributed to TB annually, and estimates suggest that by the year 2,000, India may have at least 20 million active TB patients, with one-fifth of those infectious. About 47,000 hospital beds are devoted to in-patient care of TB;

(c) In the early years of the national malaria eradication program, annual incidence fell dramatically, from 75 million to less than 1 million between 1958 and the late-1960s. In the 1970s, however, prevalence rose again, and in more recent years malaria cases have remained quite stable or slightly increasing, at about 2 million annually in recent years. Reported fatality rates are low (268 deaths in 1989);

(d) Leprosy cases have been reduced by about one-third to one-half during the 1980s, with 2.1 million cases still under treatment, and about 4 million leprosy victims in all. The all-India prevalence rate is estimated at 5.72 per 1,000. India has about one-third of the world's leprosy victims, and about one-quarter of these are children;

(e) Filariasis was reported to affect 19 million persons in 1989 with about 25 million disease carriers; and

(f) AIDS, a newly emerging problem, currently appears to be confined to certain high-risk sub-groups of the population, though there is increasing concern about wider spread of the disease, particularly through an unsafe blood supply. The World Health Organization estimates 400,000 HIV-positive individuals in India, and 1 million people with AIDS by the year 2,000.

3.9 The all-India health picture disguises the most important feature of the population's health status, the differences in patterns of morbidity, mortality and fertility among sub-populations. The most critical comparisons to make are among states, which differ in social, economic and environmental conditions; between urban and rural areas; between organized and unorganized sector workers; between scheduled and non-scheduled tribes and castes; and between men and women. In each comparison, it is possible to see the substantial gaps that exist, and the extent to which these gaps have lessened or increased over time.

Variation in Health Status across States and by Rural-Urban Residence.

3.10 Differences among states in their populations' health status are well-known and well-documented. For the most part, the correlation between health status and underlying economic welfare is consistent and clear (see section E of this chapter for a discussion of socioeconomic differences among states). The poorer states of Bihar, Madhya Pradesh, Assam, Orissa, Rajasthan and Uttar Pradesh have very high death rates, particularly among infants and children. However, due to environmental peculiarities, certain communicable diseases are more likely to be found in some of the better-off regions of the country.

Infant Mortality

3.11 Looking first at infant mortality, a sensitive indicator of basic health status and underlying socioeconomic conditions in a population, states range from having an IMR of 122 deaths per 1,000 live births in Orissa, to less than one-fifth that level in Kerala, with 22 deaths per 1,000 (Table 3.1). As one would expect, the states of Madhya Pradesh, Rajasthan and Uttar Pradesh all have exceedingly high IMRs of close to (or more than) 100 per 1,000, while the northern and southern states have substantially lower levels of infant mortality.

Table 3.1: Selected Health Indicators for India's 15 Major States

STATE	1989 IMR (per 1,000 births)	% CHANGE IN IMR 1980-89	1988 CHILD(0-4) MORTALITY (per 1,000)	1987 TFR (child per woman	% CHANGE TFR 1981-87	1986-91 MALE LEB (YRS)
Andhra Pradesh	81	-12%	27	3.6	-10%	59.1
Assam	91	-12%	37	4.0	-2%	55.7
Bihar	91	N/A	38	5.3	-7%	58.2
Gujarat	86	-24%	31	3.6	-16%	58.3
Haryana	82	-20%	29	4.3	-14%	63.4
Karnataka	80	13%	24	3.4	-6%	62.2
Kerala	22	-45%	8	2.2	-21%	66.2
Madhya Pradesh	117	-18%	51	4.7	-10%	56.2
Maharashtra	59	-21%	22	3.5	-3%	61.9
Orissa	122	-15%	37	3.7	-14%	57.1
Punjab	67	-25%	21	3.4	-15%	65.6
Rajasthan	96	-9%	52	4.8	-8%	57.8
Tamil Nadu	68	-27%	21	2.6	-24%	60.9
Uttar Pradesh	118	-26%	47	5.5	-5%	54.1
West Bengal	77	N/A	22	3.8	-10%	60.0

Sources: Family Welfare Yearbook 1991; Duggal, 1992; Table 5

3.12 The greatest relative (percentage) gain in reducing infant mortality between 1980 and 1989 was achieved by Kerala, which nearly halved the rate of infant deaths over less than a decade. Other states, including the relatively disadvantaged Uttar Pradesh, achieved striking declines in infant mortality, as well. The rate of improvement in infant survival was hardly uniform, however. For example, Rajasthan's 1989 IMR of 96 per 1,000 was little changed from nine years earlier.

3.13 Child mortality confirms the established pattern and, more than infant mortality, reflects access to health services: Kerala achieves far greater levels of child survival than other states; on the other extreme, Bihar, Madhya Pradesh, Rajasthan and Uttar Pradesh all suffer from extremely high levels of child mortality.

Fertility Between States

3.14 On average, women in Kerala and Tamil Nadu have the lowest fertility, due to both relatively high age at marriage and relatively high contraceptive prevalence. Each woman in the poorer eastern states of Bihar and Uttar Pradesh has an average of more than five children. The most rapid declines in fertility in the past decade have occurred in Tamil Nadu and Kerala; the slowest in the most disadvantaged states.

Life Expectancy at Birth by State

3.15 Somewhat less variation among states can be observed in life expectancy at birth, an indicator that reflects the combined influence of causes of death at all ages. At the lowest extreme is Uttar Pradesh, where men live (on average) to be about 54 years; the highest life expectancy is in Kerala, at about 66 years.

3.16 Any effort to identify interstate differences in morbidity is hampered by a lack of valid and reliable information, and the confounding relationship between health service coverage and availability of statistical information. However, with caution it is possible to at least see some of the relative burdens that specific communicable diseases place on the states' populations.

3.17 Table 3.2 presents the absolute and relative distribution of selected diseases among the 15 major states for a recent year. The lack of uniform distribution of the diseases, due to a host of natural and manmade influences, is apparent. For example, reported malaria cases are concentrated in the states of Gujarat, Madhya Pradesh and Orissa. Combined, these three states account for only about 17 percent of the total population of the major states, but have nearly 60 percent of the reported malaria cases. Leprosy, on the other hand, is disproportionately likely to be found in Andhra Pradesh, Bihar, Tamil Nadu and Orissa, and is relatively scarce in Assam, Gujarat, Punjab and other states. According to reported estimates of the number of diseased persons, filaria is most concentrated in Bihar, Kerala and Uttar Pradesh, and relatively uncommon in much of the rest of the country. Most strikingly, kala-azar is clearly isolated in Bihar, which had more than 86 percent of all cases in 1988, and West Bengal, which reported about 14 percent of all kala-azar cases.

3.18 The vast interstate disparities in the extent to which these communicable diseases affect the population can most vividly be seen by comparing the situation in Bihar with that in Maharashtra -- states that differ only a little in size, but greatly in incidence and prevalence of these illnesses. Bihar, which accounts for about 11 percent of the population of the major states, has only about 2 percent of all malaria cases; at the same time, Bihar has 20 percent of all leprosy cases under treatment, nearly 29 percent of all persons with filaria disease; and nearly all of the incidence of kala-azar. Maharashtra, with 9.4 percent of the fifteen states' population, has 6.4 percent of the malaria cases, 8.5 percent of the leprosy cases under treatment, less than 1 percent of all filaria-diseased persons, and almost no kala-azar.

Table 3.2: Distribution of Selected Communicable Diseases Across States, 1988/89

STATE	EST % OF POP OF 15 STATES	1989 MALARIA CASES	1989 % OF MALARIA CASES	1989 LEPROSY CASES UNDER TREATMENT	1989 % OF LEPROSY CASES	1989 FILARIA DISEASED PERSONS (mill)	1989 % OF FILARIA CASES	1988 K-A CASES	1988 % of K-A CASES
Andhra Pradesh	8.0%	82,510	4.3%	249,791	11.8%	1.35	7.1%		
Assam	3.1%	62,274	3.3%	17,984	0.9%	0.09	0.5%		
Bihar	10.7%	40,001	2.1%	423,219	20.0%	5.41	28.5%	19,639	86.4%
Gujarat	5.1%	598,653	31.3%	32,617	1.5%	0.13	0.7%		
Haryana	2.0%	23,711	1.2%	1,344	0.1%	N/A	0.0%		
Karnataka	5.7%	106,683	5.6%	66,264	3.1%	0.08	0.4%		
Kerala	3.8%	6,126	0.3%	57,431	2.7%	2.24	11.8%		
Madhya Pradesh	8.0%	252,886	13.2%	93,569	4.4%	0.08	0.4%		
Maharashtra	9.4%	122,314	6.4%	180,298	8.5%	0.16	0.8%	9	0.0%
Orissa	3.9%	260,815	13.6%	177,842	8.4%	1.37	7.2%		
Punjab	2.5%	32,146	1.7%	3,177	0.2%	N/A	0.0%		
Rajasthan	5.5%	112,316	5.9%	15,596	0.7%	N/A	0.0%		
Tamil Nadu	7.1%	90,478	4.7%	273,696	12.9%	1.19	6.3%		
Uttar Pradesh	17.0%	101,815	5.3%	309,408	14.6%	6.87	36.2%	19	0.1%
West Bengal	8.2%	18,822	1.0%	211,644	10.0%	0.02	0.1%	3,068	13.5%
	100.0%	1,911,550	100.0%	2,113,880	100.0%	18.99	100.0%	22,735	100.0%

Sources: Health Information India 1990

Age-Specific Death Rates by Rural-Urban Residence

3.19 Differences in health status between urban and rural areas within a given state are at least as striking as those observed between states. Socioeconomic differentials between the 26 percent of the Indian population living in urban areas and the 74 percent now in rural areas are apparent in basic health indicators. Comparing age-specific death rates between urban and rural areas (Figure 3.1 and Table 3.3), substantially higher rural mortality is seen, particularly under age 35. In the youngest age groups (under age 10), rural children are more than twice as likely to die as are children in urban areas.

3.20 Between 1970 and 1988, as mortality was falling throughout India, the gap between urban and rural crude death rates diminished a bit. In the early 1970s, people in rural areas were about 1.7 times as likely to die as those in urban areas; by 1988, that differential had diminished marginally to about 1.6. In part, the relative lack of progress in closing the urban-rural gap is a result of the differences between states. In Bihar, for example, there was no change in the difference between urban and rural death rates between 1970/88; the ratio of rural to urban death rates remained at 1.65 during the period. In Maharashtra, the gap widened: in 1970, the ratio of rural to urban death rates was 1.44; by 1988, it was 1.58. And in Kerala, the chances of death in urban and rural areas not only closed, but it then became inverse. In 1970, the ratio of rural to urban death rates was 1.12; by 1988, it was 0.92.

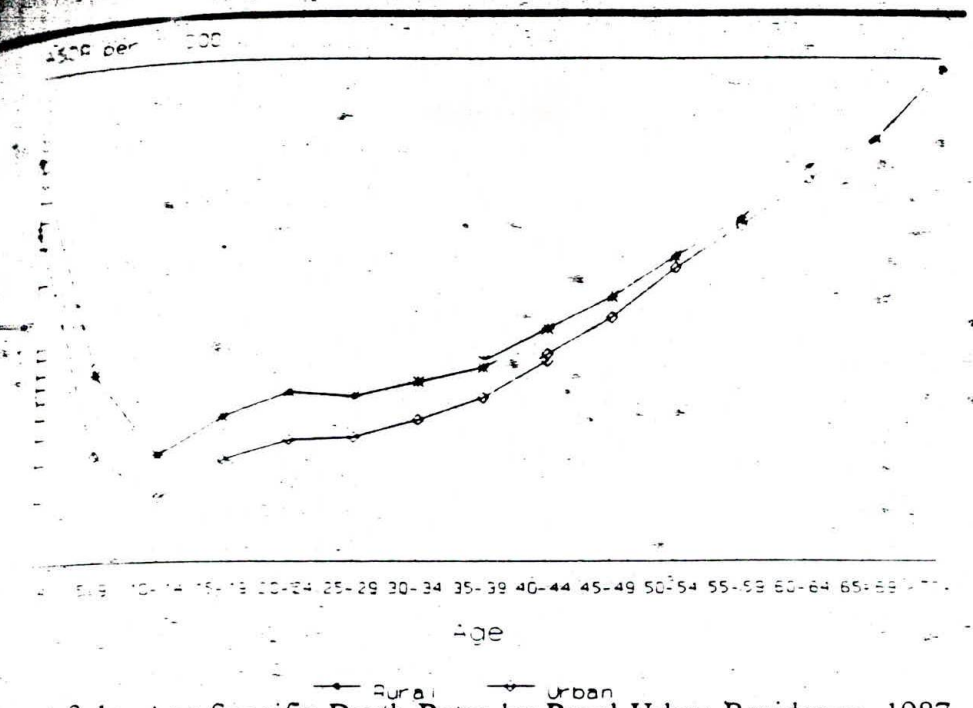

Figure 3.1: Age-Specific Death Rates by Rural-Urban Residence, 1987

Urban-Rural Differentials in Infant Mortality

3.21 Turning to infant mortality (Table 3.4), for every 1,000 births in urban India, 58 infants die; in rural India, infant mortality is far higher, at 98 deaths per 1,000 births. The differential between urban and rural infant mortality is pronounced in nearly all states; in at least some, it has persisted with little change over time[1/]. In some states, including Andhra Pradesh, Haryana, Orissa and Rajasthan, there has been considerable convergence between 1980 and 1989. Over that period, rural infant mortality declined at a much faster rate than did urban infant mortality. In others, including the high-IMR states of Madhya Pradesh and Uttar Pradesh, the gap between urban and rural rates has narrowed very little.

[1/] It is important to note that these data probably understate the gap between urban and rural areas due to the pattern of registering by place of death. An unknown infant deaths occurring in urban areas (for example, in hospitals) are of children who are brought in from rural areas.

Table 3.3: Age-Specific Death Rates by Rural and Urban Residence, 1987

AGE	ASDR RURAL	ASDR URBAN	ASDR RURAL:URBAN
0-4	39.7	18.2	2.2
5-9	3.9	1.6	2.4
10-14	1.6	1.0	1.6
15-19	2.4	1.5	1.6
20-24	3.1	1.9	1.7
25-29	3.0	1.9	1.6
30-34	3.5	2.3	1.5
35-39	4.0	2.9	1.4
40-44	5.7	4.3	1.3
45-49	7.9	6.4	1.2
50-54	12.1	10.7	1.1
55-59	18.2	16.7	1.1
60-64	31.5	27.5	1.1
65-69	42.6	41.2	1.0
70+	89.6	88.5	1.0
ALL AGES	12.0	7.4	1.6

Source: Health Information India 1990

Table 3.4: Urban-Rural Differentials in Infant Mortality and Total Fertility in 15 Major States

	1989 IMR		RATIO OF RURAL:URBAN IMR		1987 TFR		RATIO OF RURAL:URBAN TFR	
	URBAN	RURAL	1989	1980	URBAN	RURAL	1987	1981
ALL INDIA	58	98	1.7	1.9	3.2	4.4	1.4	1.5
Andhra Pradesh	53	87	1.6	2.6	3.1	3.8	1.2	1.4
Assam	63	93	1.5	1.6	2.6	4.1	1.6	1.6
Bihar	63	93	1.5	N/A	4.2	5.4	1.3	1.2
Gujarat	70	92	1.3	1.3	3.3	3.8	1.2	1.4
Haryana	58	88	1.5	2.1	3.6	4.5	1.3	1.5
Karnataka	53	89	1.7	1.8	2.9	3.7	1.3	1.3
Kerala	15	23	1.5	1.2	2.2	2.2	1.0	1.2
Madhya Pradesh	78	124	1.6	1.9	3.8	5	1.3	1.4
Maharashtra	44	66	1.5	1.6	3	3.7	1.2	1.3
Orissa	76	126	1.7	2.4	3	3.8	1.3	1.3
Punjab	53	72	1.4	1.7	3.1	3.5	1.1	1.2
Rajastan	59	103	1.7	2.3	3.9	5	1.3	1.3
Tamil Nadu	43	80	1.9	1.6	2.4	2.8	1.2	1.4
Uttar Pradesh	75	126	1.7	1.7	4.3	5.8	1.3	1.5
West Bengal	53	82	1.5	N/A	2.4	4.4	1.8	2.0

Source: Family Welfare Yearbook, 1989-90

Rural and Urban Fertility Rates

3.22 Fertility rates show similar patterns: Rural women have 4.4 children, on average, while women in urban areas have an average of 3.2 children. With the sole exception of Kerala, where both urban and rural women have very low (replacement-level) fertility rates, all states exhibit the expected rural-urban differential, with modest declines between 1981 and 1987, the most recent year for which data are available. Assam stands out as a state that has a sustained large differential between urban and rural fertility.

3.23 Variation in Health Status by Social Group. Within geographic areas, variation in health status is seen by caste. The IMR for scheduled castes and tribes in rural areas is 22 percent higher than for the general rural population (Table 3.5). In urban areas, infant mortality is 44 percent greater for these disadvantaged groups than for the general population. With respect to child mortality, the differentials by caste are even more pronounced. Caste-specific variation is also seen in fertility rates, though differences are less marked.

3.24 According to a study in rural Tamil Nadu (Sundari, 1992), the incidence of complications of pregnancy and childbirth is closely related to social (or caste status), with the lowest most disadvantaged ("scheduled") groups having at least one pregnancy-related problem in 42 percent of the cases studied, and less disadvantaged (but still "backward") castes experiencing pregnancy-related problems in about 30 percent of cases.

Table 3.5: Interaction between Rural-Urban Residence and Scheduled Caste/Scheduled Tribe

POPULATION	1981 IMR	1981 CHILD MORTALITY	1981 TFR
Rural (All)	98.5	149.4	5.4
Rural (SC/ST)	120.5	190.0	5.6
Urban (All)	57.5	78.7	4.6
Urban (SC/ST)	83.0	121.5	5.0

Source: Computed from Census India, 1981

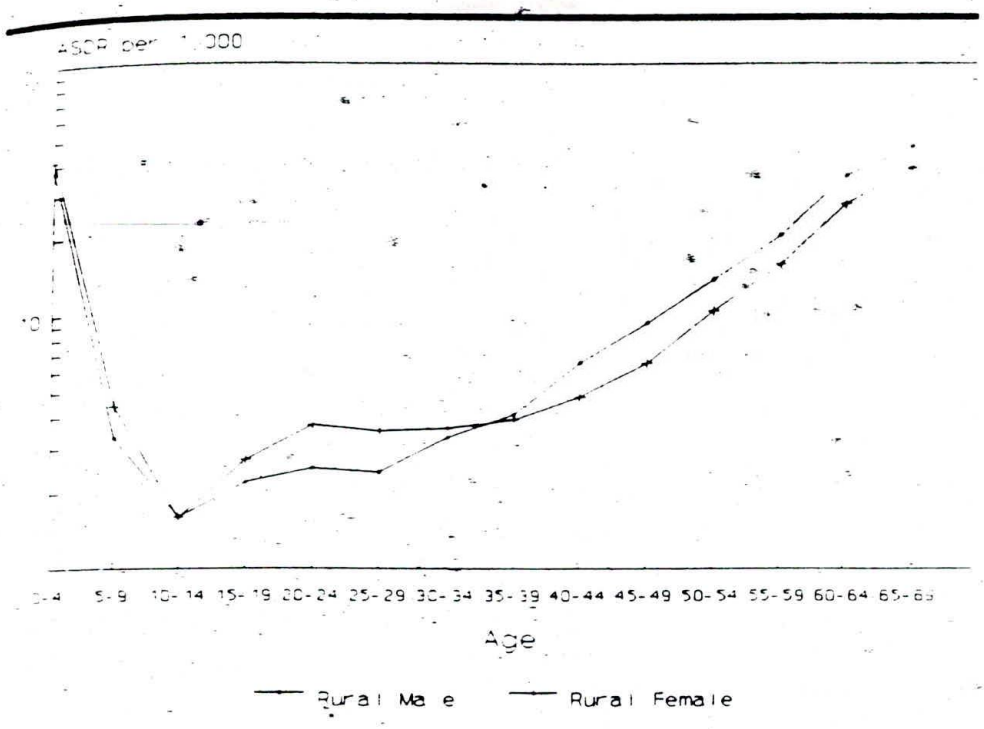

Figure 3.2: Age-Specific Death Rates in Rural Areas, by Sex, 1987

Gender Differences in Health Status.

3.25 India is one of only seven countries in the world in which women have higher mortality (at least up to age 35) and lower life expectancy than men. As shown in Figure 3.2, in most parts of the country, girls are more likely to die than boys. In general, states with the highest overall mortality levels have the greatest differentials between males and females (Chatterjee, 1989: 3).

3.26 The difference between rural and urban areas in the relative disadvantage of women can be seen in Table 3.6, which in the first two columns show the ratio of rural to urban age-specific death rates for men and women separately, and in the second two columns show the ratio of female to male age-specific death rates in rural and urban areas. While for both men and women, urban populations are better off than those in rural areas, among adults that differential is greatest for women in the reproductive ages. The excess mortality of women compared to men is seen in both urban and rural areas, for the most part, but is greatest in the rural populations, particularly in the years of the greatest childbearing.

3.27 The excess mortality of females is reflected in the unfavorable sex ratio throughout all of India, with the sole exception of Kerala. Disturbingly, there was an unexpected 5-point decline in the sex ratio between 1981 and 1991 (from 934 to 929 females per 1,000 males), after a period when most had hoped that both socioeconomic development efforts and health services were reaching out to a larger portion of disadvantaged women.

3.28 With respect to morbidity, several studies demonstrate that girls are more likely than boys to suffer from several illnesses, including respiratory infections that are the cause of a large proportion of childhood deaths. Diarrheal disease has been found to be more prevalent among female children, as well. (Cohen, 1987; Pettigrew, 1987; Levinson, 1974, all cited in Chatterjee, 1989). A national survey found that visual disabilities were nearly 50 percent more common in men than women (National Sample Survey Organization, 1983, cited in Chatterjee, 1989).

3.29 It is critical to note that gender differentials in morbidity are extremely difficult to quantify. Ironically, the methodological difficulties result from the very same influences that cause the differentials themselves: despite their increased mortality, women are less likely to consider their health conditions as "sicknesses," and still less likely to seek care outside the home. Therefore, any provider-based information on morbidity is likely to be heavily biased.

C. Variation in Access to Health Services

3.30 Based on the description of variations in mortality, morbidity and fertility in India, a compelling argument can be made that the health service requirements are vastly different among states and population sub-groups. We now turn to examine how access to health services varies among these same populations, in an attempt to understand the availability of health services to specific sub-groups.

Inter-State and Rural-Urban Differences in Facilities and Manpower.

3.31 In 1990, the population per hospital bed in India ranged from a low of 422 in Kerala to a high of more than seven times that figure, or more than 3,000 persons per hospital bed in Bihar. Once again, the poorer states tend to have the least favorable population-to-bed ratio, while the northern and southern states have considerably more access to hospitals, by this indicator. Involvement of non-governmental organizations in providing

health services appears to be strongly correlated with greater availability of hospital beds. In general, the states that are most dependent on the public sector facilities -- Assam, Bihar, Orissa, Rajasthan -- have the most unfavorable population-to-bed ratios. Kerala, Gujarat and Maharashtra, by contrast, have a large share of hospitals that are not supported by the state government, and the population has access to the greatest number of hospital beds per capita (Table 3.7).

Table 3.6: Age-Specific Death Rates by Rural-Urban Residence, 1987, and Comparison of Male and Female Mortality

AGE	RURAL:URBAN M	RURAL:URBAN F	FEMALE:MALE RURAL	FEMALE:MALE URBAN
0-4	2.1	2.3	1.1	1.0
5-9	2.5	2.3	1.3	1.5
10-14	1.5	1.8	1.0	0.8
15-19	1.8	1.5	1.2	1.5
20-24	1.6	1.8	1.5	1.3
25-29	1.3	1.8	1.5	1.1
30-34	1.3	1.7	1.1	0.8
35-39	1.3	1.4	1.0	0.9
40-44	1.2	1.6	0.7	0.6
45-49	1.3	1.1	0.7	0.8
50-54	1.1	1.2	0.8	0.7
55-59	1.0	1.2	0.8	0.7
60-64	1.1	1.2	0.8	0.7
65-69	1.0	1.1	0.8	0.7
70+	1.0	1.1	0.9	0.8
ALL AGES	1.5	1.7	1.0	0.9

Source: Calculated from Health Information India 1990

Table 3.7: Public and Private Hospital Beds in 15 Major States

MULTIPLE	1990 HOSPITAL BEDS	1990 POP/BED	% GOVT BEDS OF TOTAL	BEDS PER HOSPITAL GOVT	BEDS PER HOSPITAL PRIVATE	GOVT
Andhra Pradesh	36,400	1,735	69%	73	42	1.8
Assam	14,460	1,691	81%	96	47	2.0
Bihar	28,137	3,011	80%	93	101	0.9
Gujarat	46,374	871	36%	98	19	5.1
Haryana	7,003	2,305	68%	82	112	0.7
Karnataka	34,477	1,293	77%	126	144	0.9
Kerala	70,349	422	38%	193	16	12.3
Madhya Pradesh	22,103	2,852	N/A	61	N/A	N/A
Maharashtra	111,420	666	56%	90	29	3.2
Orissa	13,988	2,211	90%	50	45	1.1
Punjab	15,018	1,303	74%	60	97	0.6
Rajasthan	21,815	1,993	90%	87	54	1.6
Tamil Nadu	48,780	1,141	78%	135	87	1.5
Tripura	1,531	1,652	N/A	67	N/A	N/A
Uttar Pradesh	47,278	2,828	72%	64	76	0.8
West Bengal	53,977	1,201	86%	179	54	3.3

Source: Health Information India 1990

3.32 Not surprisingly, urban areas have a relatively greater supply of hospital beds than do rural areas. This should not necessarily be taken as an indicator of urban "bias," since even urban facilities serve patients from rural areas, and location in more densely populated areas is often the only economically efficient approach. However, the ratio of urban-to-rural hospital beds does indicate relative access to health care of urban and rural populations.

3.33 Table 3.8 shows that urban hospitals consistently make up about two-thirds to three-quarters of all hospitals. The population per bed in rural areas is three times that in urban areas (Figure 3.3).

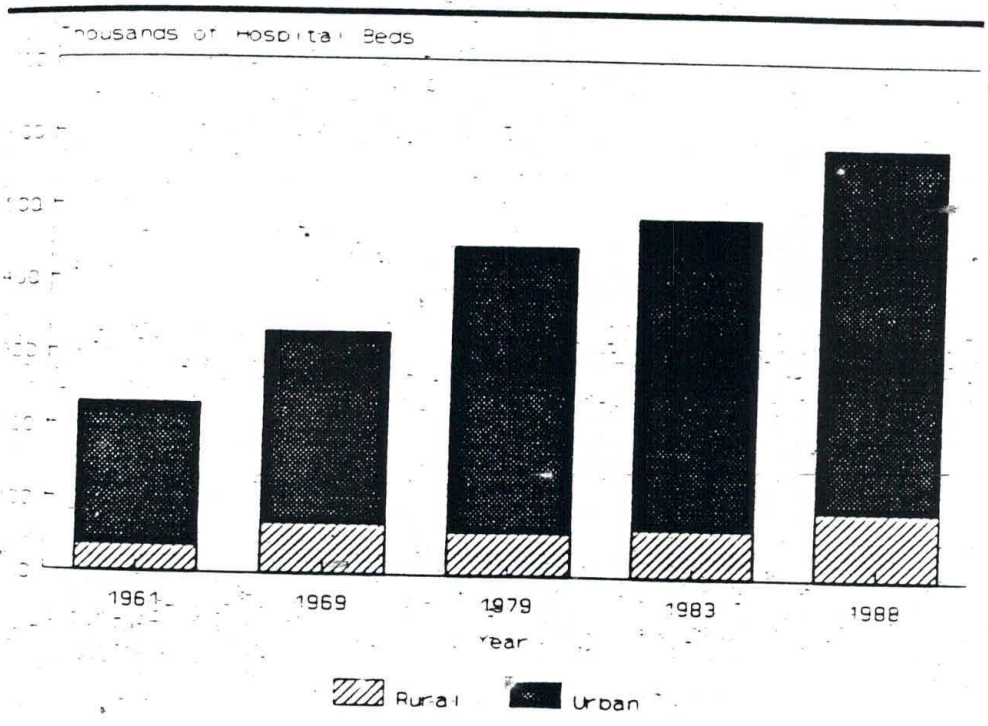

Figure 3.3: Hospital Beds by Rural-Urban Distribution, 1951-88

Primary Health Infrastructure

3.34 The public sector has built a very large infrastructure of health facilities in rural areas throughout the country. In 1991, there were some 131,000 SubCs, 22,000 PHCs and nearly 2,000 CHCs. Functioning of the rural health network depends on the existence of a referral network, from the SubC, which provides essentially no curative care, through to CHC, which has inpatient facilities. Therefore, it is important to examine the relative availability of one level of care versus others.

3.35 The ability of the states to achieve the established facility norms - one PHC for every SubC; one CHC for every four PHCs -- is shown in Table 3.9. With respect to the ratio of SubCs to PHCs, most states approach the norm. Exceptions include Assam and Madhya Pradesh, each of which have more than 10 SubCs per PHC, far above the ratio intended to provide the SubCs with adequate supervision.

3.36 Turning to the ratio of CHCs to PHCs, on the other hand, a much more varied picture emerges. In Uttar Pradesh, for instance, there are about five PHCs for every CHC -- only slightly more than the norm. In Bihar, there are more than 23 PHCs that, on average, can refer to a given CHC. Surprisingly, an even greater number of PHCs per CHC is found in the relatively well-off states of Andhra Pradesh and Punjab.

3.37 Table 3.10 displays the average rural population covered by the three basic tiers of the rural health network. Compared to the norms, nearly all states fare well in coverage by the lowest level, SC. Similarly, only a few states, including Assam, Gujarat and Madhya Pradesh, fail to meet the norm of one PHC per 30,000 population. Punjab appears to have an oversupply of PHCs (at least compared to the norm), which helps to explain the anomalous nearly one-to-one correspondence between PHCs and SubCs in that state. On average no state has met the norm of having each CHC serve a population of 80,000 to 120,000, and some states have extremely little coverage at the CHC level (e.g. Andhra Pradesh, Bihar and West Bengal).

Imbalances Between States and Levels of Health Care Provision

3.38 From this review of the available state-specific facility data on the rural health network, two major implications emerge. First, that there are great differences in the availability of hospital resources among states, and this variation is closely tied to the participation of the private sector, which in turn is linked to the states' levels of economic development. Second, in the rural health network there are notable imbalances in nearly all states among the three tiers of the system, implying that investments have not been pursued in an well-integrated and packaged form.

Table 3.8: Rural-Urban Distribution of Hospitals, 1951-88

YEAR	HOSPITALS (% RURAL)	HOSP BEDS (% RURAL)	POP PER BED
195	12,694 (N/A)	117,000 (N/A)	------
196	13,054 (32.8%)	229,634 (15.8%)	3431,589
1969	4,023 (30.7%)	328,323 (21.0%)	3101,295
1979	5,766 (25.6%)	446,605 (13.1%)	3381,139
1983	6,901 (26.4%)	486,805 (13.5%)	3691,109
1988	9,381 (31.5%)	585,889 (15.8%)	3631,034

SOURCE: Health Statistics of India, various years; Statistical Abstract 1984, 1985; Directory of Hospitals in India, 1981

Table 3.9: Distribution of Rural Health Facilities, 1991

STATE	SubCs PER PHC	PHCs PER CHC
All India	5.9	11.4
Andhra Pradesh	6.1	27.9
Assam	11.5	7.5
Bihar	5.9	23.5
Gujarat	9.5	4.5
Haryana	6.3	8.9
Karnataka	6.8	7.7
Kerala	5.6	16.8
Madhya Pradesh	10.0	6.8
Maharashtra	5.7	5.8
Orissa	5.3	12.2
Punjab	1.4	29.9
Rajasthan	6.1	6.6
Tamil Nadu	6.1	19.6
Uttar Pradesh	6.0	5.4
West Bengal	5.1	17.7
NORM	6.0	4.0

SOURCE: Rural Health Statistics, 1991

Table 3.10: Population Covered by Rural Health Facilities, 1991

STATE	AVERAGE RURAL POP SERVED BY A SUBCENTRE	% DIFF FROM NATIONAL AVERAGE	AVERAGE RURAL POP SERVED BY A PHC	% DIFF FROM NATIONAL AVERAGE	AVERAGE RURAL POP SERVED BY A CHC (in 100,000)	% DIFF FROM NATIONAL AVERAGE
All India	4,576	0	27,168	0	3.10	0
Andhra Pradesh	5,803	27%	35,710	31%	9.96	221%
Assam	4,228	-8%	48,890	80%	3.66	18%
Bihar	4,853	6%	28,795	6%	6.77	118%
Gujarat	3,947	14%	37,644	39%	1.69	-45%
Haryana	5,103	12%	29,701	9%	2.86	-8%
Karnataka	3,771	-18%	25,920	-5%	1.98	-36%
Kerala	4,565	0%	25,529	-6%	4.30	39%
Madhya Pradesh	3,975	-13%	40,053	47%	2.70	-13%
Maharashtra	4,842	6%	27,529	1%	1.60	-48%
Orissa	4,786	5%	25,262	-7%	3.09	0%
Punjab	4,638	1%	6,499	-76%	1.94	37%
Rajasthan	4,031	-12%	24,665	-9%	1.62	-48%
Tamil Nadu	4,134	-10%	25,117	-8%	4.91	58%
Uttar Pradesh	4,764	4%	28,356	4%	4.35	40%
West Bengal	5,894	29%	30,052	11%	5.33	72%
NORM	5,000		30,000		0.8-1.2	

SOURCE: Rural Health Statistics, 1991

Table 3.11: Registered Doctors and Nurses per 100,000 Population, by State, 1971-86

	1971		1981		1986		
	DOCTORS	NURSES	DOCTORS	NURSES	DOCTORS	NURSES	NURSE:DR
Andhra Pradesh	22.2	16.7	43.0	20.3	27.6	24.3	0.9
Assam	23.9	11.0	27.2	13.0	27.5	12.3	0.4
Bihar	18.5	6.5	26.2	11.1	29.3	11.6	0.4
Gujarat	26.2	9.5	43.0	14.5	48.9	17.3	0.4
Haryana				14.0		18.5	
Karnataka	26.4	6.3	51.0	14.0	62.3	21	0.3
Kerala	27.1	19.4	46.0	37.5	54.7	136.5	2.5
Madhya Pradesh	11.5	9.6	8.1	15.5	13.3	17.9	1.3
Maharashtra	45.3	39.1	65.4	54.0	55.7	47.7	0.9
Orissa	19.7	7.5	30.7	11.3	32.8	13.7	0.4
Punjab	52.3	64.7	72.0	94.6	74.5	105.9	1.4
Rajasthan	12.9	11.0	25.4	15.3	28.3	19.3	0.7
Tamil Nadu	45.5	34.4	65.7	51.8	74.3	51.7	0.7
Uttar Pradesh	14.6	3.9	21.5	6.8	22.9	7.7	0.3
West Bengal	58.0	11.4	60.2	16.2	61.6	18.8	0.3
INDIA	27.6	14.7	39.2	22.0	41.8	27.1	0.6

Source: Health Information India, various years, in Duggal (1992)

D. Health Manpower

The Supply of Doctors

3.39 With respect to manpower in the health sector, data from 1986 and earlier years (Table 3.11) shows quite a close relationship between the number of doctors per 100,000 and a state's relative economic and social condition. In Gujarat, Karnataka, Kerala, Punjab, Tamil Nadu and West Bengal, far more medical manpower is available per capita than in the poorer states of Assam, Bihar, Madhya Pradesh, Rajasthan and Uttar Pradesh.

The Supply of Nurses: Imbalances between states are acute.

3.40 The supply of nurses, low in nearly all parts of India, is cause for the greatest concern in the traditionally disadvantaged states. In Uttar Pradesh, for example, there are only 7.7 nurses per 100,000, while in Tamil Nadu there are nearly 52 nurses per 100,000 population. In nearly all areas of the country, the number of doctors exceeds the number of nurses, in some cases (such as West Bengal) more than three-fold. There are some exceptions to this general rule -- Kerala, which has a remarkably large supply of nurses, compared to the rest of the country; Madhya Pradesh, which seems to suffer from severe shortages of both doctors and nurses, and Punjab, which appears to have a relatively good supply of both types of health professionals.

Rural-Urban Differences in Health Manpower

3.41 Data on the urban-rural distribution of doctors, nurses and other personnel are available only from the decennial Census, so the most recent information available is from 1981. (The 1991 tabulations by occupational category have not yet been made available.) Table 3.12 shows that, in general, allopathic doctors are more likely to be found practicing in cities, while non-allopathic doctors (even registered ones) are most often in rural areas. Interestingly, however, between 1961 and 1981, the proportion of rural doctors officially registered to practice allopathy has increased from about 40 to 62 percent.

Table 3.12a: Rural-Urban Distribution of Medical Manpower, 1961-81

YEAR	ALLOPATHIC DRS		NON-ALLOPATHIC DRS		ALL RURAL DRS	
	TOTAL	% RURAL	TOTAL	% RURAL	TOTAL	% ALLOPAT
1961	65,024	29.5%	100,247	61.1%	165,271	39.3%
1971	126,353	39.4%	105,155	61.3%	231,508	54.6%
1981	196,554	27.2%	120,515	58.9%	317,069	62.0%

Table 3.12b: Rural-Urban Distribution of Nursing and Other Paramedical Manpower, 1961-81

YEAR	NURSES		MIDWIVES/HEALTH VISITORS	
	TOTAL	% RURAL	TOTAL	% RURAL
1961	76,209	38.2%	51,194	66.4%
1971	103,610	30.6%	36,320	65.3%
1981	167,188	31.3%	49,579	59.9%

Source: Duggal, 1992

3.42 With respect to nurses and other paramedical personnel, the picture is much the same. Trained nurses are most often urban-based; midwives and other paramedical manpower are most often in rural areas (Table 3.12).

3.43 Variations of staffing of Health Facilities. In the rural public health network, quite striking variation is seen in the vacancies in government health facilities. Table 3.13 presents vacancies among physicians and paramedical personnel at the PHC level. The picture is not a clear one. For example, all sanctioned positions for physicians are said to be filled in Assam and Bihar, two of the poorest states, while in Madhya Pradesh and Uttar Pradesh, two of the other disadvantaged states, the vacancy level for doctors at PHCs is 18 and 40 percent, respectively. On the other hand, in Gujarat, Haryana and West Bengal, relatively better-off states, significant vacancy levels are also found.

3.44 Vacancy levels among paramedical personnel are also strangely varied. A few examples point out the apparently unsystematic differences in vacancy levels: Assam and Bihar report no vacancies among Health Workers (Male) (also known as male multi-purpose workers), and yet relatively high vacancies among Health Workers (Female) (also known as Auxiliary Nurse Midwives, or ANMs). On the other hand, Kerala, which reports a full cadre of doctors has nearly 24 percent of its male and none of its female health worker positions vacant. And Uttar Pradesh, apparently very short on doctors in sanctioned positions, seems to have few if any vacancies among its paramedical personnel. Overall, the manpower statistics available present a picture of imbalances between the numbers of health workers supervised and the doctors and nurses who are assigned the responsibility of supervision. This imbalance, in one form or another, is present in nearly every state, regardless of economic condition or spending in the health sector.

Table 3.13: Health Manpower in Rural Areas, 1990

STATE	Gov't Drs per 100,000	Vacancy Drs at PHC	Vacancy Health Worker Male at PHC	Vacancy Health Worker Female at PHC
Andhra Pradesh	53	18.8%	11.9%	10.7%
Assam	11	0.0%	0.0%	23.7%
Bihar	29	0.0%	0.0%	24.9%
Gujarat	7	20.4%	15.5%	16.2%
Haryana	8	23.9%	19.0%	4.7%
Karnataka	70	13.7%	13.4%	8.4%
Kerala	14	0.0%	23.5%	0.0%
Madhya Pradesh	14	18.2%	4.2%	6.4%
Maharashtra	85	15.0%	7.6%	4.8%
Orissa	15	14.3%	11.3%	0.0%
Punjab	18	5.3%	14.6%	0.0%
Rajasthan	31	0.8%	9.1%	12.5%
Tamil Nadu	87	0.0%	15.5%	2.0%
Uttar Pradesh	6	40.2%	1.6%	0.0%
West Bengal	46	14.9%	10.0%	19.8%

Source: Health Information India 1990

Other Aspects of Differential Access.

Differences in Access to Health Services between Organized and Unorganized Sectors. Only an estimated 8 to 10 percent of the Indian work force is employed in the organized sector[1]/; the remaining workers are either in unorganized agricultural production or the informal, non-agricultural sector. As shown in Table 3.14, more industrially developed states such as Maharashtra and Gujarat have a disproportionately large number of organized sector workers, while the more agriculturally-oriented eastern states of Bihar and Uttar Pradesh have a small organized sector, relative to their population sizes. (Note that figures are presented in this fashion because it is not possible, given the available information, to arrive at state-specific labor force participation rates.) The participation of women in the organized sector is low throughout India, though it ranges from slightly less than 7 percent in Bihar to about 35 percent in Kerala.

Table 3.14: Distribution of Organized Sector Workers by State

STATE	% OF ALL 15 STATES POPULATION	1989 NUMBER IN ORGANIZED SECTOR	% OF ALL 15 STATES	% FEMALE OF ALL WORKERS
Andhra Pradesh	8.0%	1,681,197	7.0%	12.3%
Assam	3.1%	995,398	4.1%	29.4%
Bihar	10.7%	1,653,747	6.8%	6.8%
Gujarat	5.1%	1,615,485	6.7%	12.3%
Haryana	2.0%	587,174	2.4%	11.7%
Karnataka	5.7%	1,385,555	5.7%	16.1%
Kerala	3.8%	1,096,251	4.5%	35.1%
Madhya Pradesh	8.0%	1,613,267	6.7%	9.7%
Maharashtra	9.4%	3,563,757	14.8%	12.8%
Orissa	3.9%	724,626	3.0%	7.9%
Punjab	2.5%	764,876	3.2%	13.4%
Rajasthan	5.5%	1,124,509	4.7%	12.2%
Tamil Nadu	7.1%	2,229,454	9.2%	20.6%
Uttar Pradesh	17.0%	2,644,589	11.0%	7.6%
West Bengal	8.2%	2,464,994	10.2%	10.0%
15 Major States	100.0%	24,144,879	100.0%	13.6%

Source: Family Welfare Yearbook 1990

1/ Defined as all establishments in the public sector irrespective of size of employment and those non-agricultural establishments in the private sector employing 10 or more persons.

Employees State Insurance Scheme.

3.46 With respect to health services, organized-sector workers have far more resources available than do workers in agriculture or the unorganized (informal) sector. Several institutions that exist to provide workers in the organized sector and their dependents with health services are described briefly below, and in more detail in Annex 3. The largest of these is the Employees State Insurance Scheme (ESIS), a government-subsidized insurance plan established under the Employees State Insurance Act of 1948 to provide benefits to employees of the organized sector in case of sickness, maternity and employment injury. In essence, it provides low-wage employees in the organized sector with many of the health services associated with social security systems in other countries.

3.47 As implemented, the ESIS covers a rather narrow band of workers and their dependents: employees receiving wages of not more than Rs. 1,600 per month who are employed in covered factories and establishments[1/]. The threshold wage currently is being increased to Rs. 2,500 to reflect wage inflation.

3.48 Rather than financing care through general public or private health providers, the ESI Scheme provides services directly through a sizeable and growing network of dispensaries, ESI hospitals and annexes. At the end of the first quarter of 1991, 1,384 ESI dispensaries and 111 ESI hospitals were functioning. Including ESI hospitals and beds assigned to the plan in other facilities, nearly 23,000 beds were available to the approximately 27 million beneficiaries. These schemes are valued by employees as a welcome alternative to wider public sector health services. Given that the plan is expressly designed to cover employees in the organized sector, it is not surprising that both beneficiaries and facilities are concentrated in industrialized urban areas.

3.49 In addition to ESIS, which covers low-wage workers in the organized public and private sectors, moderate-sized and large private firms typically provide some type of medical benefits to employees. A study of a sample of 134 companies carried out by the Foundation for Research in Community Health found that most firms offered at least one type of medical benefit: 87 firms offered reimbursement claims, 22 offered a lump sum allowance, 74 provided services in their own or rented facilities, and 38

1/ Covered establishments include non-seasonal factories using power and employing 10 or more persons, and non-power factories employing 20 or more persons, or in shops, hotels, restaurants, cinemas, road motor transport enterprises and newspaper establishments employing 20 or more persons

offered insurance coverage. Of the 134 companies, about 54 percent also participated in ESIS.

Central Government Health Care Scheme

3.50 Workers in specific public sector enterprises are covered through special health schemes. The Central Government Health Scheme (CGHS), initiated in 1954, was designed to provide comprehensive medical care facilities to central government employees and their dependents. In 1990, CGHS provided care to 3,833,000 beneficiaries through a network of about 300 dispensaries, 3 yoga centers, and 13 poly-clinics in 15 cities. Most of the dispensaries specialize in allopathic care; a limited number provide ISM care. While CGHS dispensaries provide the basic health care and emergency services, hospitalization is provided through central, state or municipal hospitals. In the few instances when government facilities are unavailable, private hospitals are authorized to provide inpatient services for CGHS beneficiaries.

3.51 Not surprisingly, given the population being served, the facilities are again highly concentrated in a few major metropolitan areas. The vast majority of services (e.g., two-thirds of the dispensaries) and a large share (43 percent) of the beneficiaries are in Delhi. Bombay, Calcutta and Hyderabad together account for another 25 percent of dispensaries and 25 percent of beneficiaries (NCAER, 1992).

3.52 Other categories of public sector workers, including those in defense, postal, telephone, mine and enterprises, have their own health services, financed through the ministries under which the workers are employed. Coverage of these services is shown in Table 3.15.

Table 3.15: Health Providers for the Organized Sector, Special Categories of Workers

ENTITY BASIC	HEALTH UNITS	HOSPITAL BEDS	POPULATION COVERED
ESIS	1,384	22,714	26,748,750
CGHS	313	0	3,833,397
POSTAL/ TELECOMM	62	0	N/A
MICA MINES	19	180	N/A
IRON AND OTHER ORE MINES	23	235	N/A
LIMESTONE AND DOLOMITE	36	0	N/A
BEEDI WORKERS	155	60	N/A
RAILWAYS	655	12,644	8,618,000
DEFENSE	N/A	N/A	N/A

Source: Health Information India 1990

Differences in Access to Health Services Among Distinct Social Groups.

3.53 The norms for public health infrastructure are designed to favor tribal (and hilly) areas. While in most of the country, there is supposed to be one SubC for every 5,000 people, in tribal areas the population: SubC ratio is lowered to 3,000:1. For PHCs, the national norm is one for every 30,000; in tribal areas, it is one for every 20,000 population.

3.54 Of the 3,507 PHCs estimated to be required for tribal areas (based on population size), 91 percent were in place by the end of the 1991 fiscal year. Of the 23,586 SubCs sanctioned for tribal areas, approximately 80 percent were in place. Table 3.16 shows the variation in coverage of tribal areas by state. The range of coverage is wide, and not clearly related either to the state's available resources or to the total size of the tribal population, as might be expected: In Bihar, for example, only about 42 percent of the PHCs required in the tribal areas are in place, while in Madhya Pradesh, which has a larger tribal population, about 84 percent of the required PHCs have been constructed. With respect to SubCs, the states showing the greatest deficits are, oddly, Bihar and Kerala. The reasons and consequence are different though. This represents deprivation in Bihar, but in Kerala is a consequence of good communications, combined with effective and available higher level care.

3.55 Unfortunately, no quantitative information is available to show whether the existing PHCs and SubCs are more or less likely to be functioning than those in other areas. However, knowledgeable individuals consistently report that medical manpower shortages are particularly acute in these areas, and a relatively large share of the rural public health network in these areas is not able to provide curative services.

Table 3.16: Achievement of Coverage of Tribal Areas by State, 1991

STATE	PHC REQ	PHC IN PLACE	PHC % ACHIEVED	SC REQ	SC IN PLACE	SC % ACHIEVED
Andhra Pradesh	137	116	84.7%	915	654	71.5%
Assam	121	74	61.2%	804	445	55.3%
Bihar	489	208	42.5%	3,522	1,824	51.8%
Gujarat	294	163	55.4%	1,930	1,632	84.6%
Karnataka	266	307	115.4%	1,855	1,850	99.7%
Kerala	55	58	105.5%	380	131	34.5%
Madhya Pradesh	752	633	84.2%	5,019	4,935	98.3%
Maharashtra	271	265	97.8%	1,806	1,685	93.3%
Orissa	354	397	112.1%	2,300	1,854	80.6%
Rajasthan	135	125	92.6%	1,019	931	91.4%
Tamil Nadu	12	13	108.3%	70	111	158.6%
Uttar Pradesh	219	189	86.3%	1,381	1,376	99.6%
West Bengal	107	417	389.7%	712	91	12.8%
Major States	3,212	2,965	92.3%	21,713	17,519	80.7%

Source: Rural Health Statistics 1991

Differences in Access to Health Services by Gender

3.56 When examining access of women to medical care, it is critical to recognize the cultural and economic (demand-side) influences that are operating. The literature is replete with studies showing that young boys and men are consistently given preferential treatment, particularly in seeking health care, relative to young girls and women (Chatterjee, 1989 provides a review of these studies).

3.57 From the provider side, several services are specifically targeted at women. In particular, the family welfare program, combining family planning and maternal and child health, operates almost exclusively through ANMs at the SC and PHC levels. Without question, the vast majority -- estimated at 75 percent -- of the ANMs time is devoted to family planning work. To a large extent, this involves identifying potential family planning acceptors, and motivating those women to obtain government-provided sterilizations. The remaining time, allocated to MCH activities, is mainly spent on child immunization, by all reports. Therefore, it appears that there is little specific attention given to women's health needs, and almost none to the health needs of women that are not directly related to their children's health.

3.58 As one indicator, it is useful to look at trends in the proportion of pregnant women who are attended by trained personnel, or who give birth in an institution, since this indicator is closely related both to access to health services and to a major source of excess female mortality, maternal deaths. For both urban and rural populations, there has been an increase in institutional childbirth over the past 20 years or so, though the gap between rural and urban attendance has persisted. In 1971, only 7.8 percent of rural births and 32.1 percent of urban births took place in medical institutions; at that time, 11.3 percent of rural births and 24.5 percent of urban births were attended by trained personnel. By 1987, 14.7 percent of rural births and nearly half (48.7 percent) of urban births took place in medical institutions. At that time, 17.8 percent of rural births and 25.5 percent of urban births were attended by trained medical practitioners (Family Welfare Yearbook 1989-90).

3.59 Whether a birth takes place in a home or an institution appears to be largely a function of whether a functioning public facility is nearby, at least for rural women. A study of more than 3,000 rural mothers carried out by the Indian Council of Medical Research (1991) found that among women living in a village where a PHC was located, about 55 percent gave birth at home, versus about 35 percent in the PHC. Among women living in a village with a SC, more than 80 percent gave birth at home, and less than 10

percent in the SC or the referral PHC. Finally, nearly all women living in remote villages, without close access to either an SC or a PHC, gave birth at home.

F. Variation in Utilization of Health Facilities

3.60 Ironically, for all the vast differences in economic and environmental conditions that characterize distinct sub-groups in India, and despite the regional and other differentials in the extent to which the public health network provides coverage, there is a remarkable consistency in health service utilization patterns. In every state, in rural and urban areas, among rich and poor, the vast majority of people seek health care from the private sector. And, whether obtaining medical care from the public or the private sector, almost all individuals pay a substantial amount out of pocket for health services. In many cases, those who can least afford to pay -- the rural poor -- pay the most.

3.61 Two sources provide useful data on households' utilization of health services: the 42nd round of the National Sample Survey (NSS) (social consumption survey), carried out in 1986-87; and the National Council for Applied Economic Research (NCAER) study of household expenditures, carried out in 1990. Using these data, it is possible to see differences in utilization and expenditure patterns by state, by rural-urban residence, and by income group.

The Demand for Private Sector Health Care

3.62 Table 3.17 shows the use of health services for illnesses requiring treatment for each of the 15 major states. In all but three states (Orissa, Rajasthan and West Bengal), private hospitals account for a much larger share of all health services than any other source. In 10 of the 15 states, government hospitals provide less than one-third of all treatments, while PHCs rarely provide more than about 10 percent of the care. Interestingly, in Kerala, which has by far the most favorable health indicators, PHCs were found to provide essentially none of the curative care; public hospitals provide about 30 percent of all care. Private hospitals in that state were found to provide 42 percent of all treatments.

3.63 According to information from NCAER, the preferred health provider in both rural and urban areas was the private doctor (54.8 and 55.5 percent of all treatments were from private doctors in urban and rural areas, respectively) (Table 3.18). Despite the documented regional differences in availability of doctors, hospital beds and the public health network, there is

essentially no rural-urban difference in people's behavior when seeking health care.

Table 3.17: Utilization of Health Services, by State, 1990

STATE	GOVT HOSP	ESI HOSP	PRIVATE HOSP	PHC	CHARITAB DISP	MEDICAL SHOPS	OTHERS
Andhra Pradesh	31.5%	8.1%	29.7%	6.2%	0.3%	12.7%	11.5%
Assam	36.1%	3.1%	39.6%	10.3%	1.8%	7.7%	1.4%
Bihar	21.4%	1.0%	48.5%	10.9%	0.9%	9.4%	7.9%
Gujarat	27.4%	0.0%	66.2%	3.1%	0.0%	1.4%	1.4%
Haryana	20.8%	0.0%	44.1%	10.3%	0.0%	24.8%	0.0%
Karnataka	39.7%	0.0%	50.1%	1.9%	0.0%	4.7%	3.7%
Kerala	29.1%	2.7%	42.0%	0.0%	2.7%	20.2%	3.2%
Madhya Pradesh	29.0%	0.2%	48.1%	1.7%	2.6%	9.2%	9.2%
Maharashtra	17.0%	0.8%	49.1%	20.8%	0.0%	8.0%	4.2%
Orissa	61.1%	0.1%	7.2%	15.8%	0.3%	5.4%	10.1%
Punjab	12.2%	0.0%	47.0%	18.6%	0.0%	19.6%	2.7%
Rajasthan	48.8%	8.7%	14.6%	0.0%	1.6%	15.7%	10.7%
Tamil Nadu	36.4%	0.0%	58.2%	2.5%	0.0%	0.5%	2.5%
Uttar Prad	17.9%	0.5%	58.7%	8.6%	0.3%	6.9%	7.0%
West Bengal	15.5%	1.5%	16.8%	7.1%	2.6%	41.0%	15.6%

Source: NCAER Survey of Household Expenditures

Table 3.18: Medical Treatment Used and Average Expenditure per Illness Episode

TYPE OF TREATMENT	URBAN		RURAL	
	% OF EPISODES	AVERAGE EXP (Rs.)	% OF EPISODES	AVERAGE EXP (Rs.)
Government Doctors	39.1	126.32	38.3	168.99
Private Doctors	54.8	164.44	55.5	146.70
Paramedical Person	1.2	51.30	2.6	127.15
Rituals	0.2	118.09	1.2	165.94
Self-Medication	4.7	48.22	2.5	18.98
Total	100	142.60	100	151.81

Source: NCAER Survey of Household Expenditures

Costs per Illness Episode

3.64 The NSS found a similar utilization pattern (Table 3.19). The private sector accounted for about 75 percent of all health care in both rural and urban settings. Out of the public sector's 25 percent share, only about 5 percent of all treatments were from primary health centers in rural areas; nearly 18 percent were from public hospitals. In urban areas, public hospitals provided a marginally higher proportion of public sector care. In the private sector, the majority of care is provided by private doctors, with no difference between urban and rural patterns.

3.65 With respect to expenditures per episode, which include direct charges, transportation, transaction payments and other access costs, drugs and all other expenses, it appears from the NCAER data that individuals in rural areas spend slightly more than those in urban areas, possibly both because they are more severely ill when seeking treatment and because transportation costs are relatively high. On average, patients pay Rs. 140-150 per episode. No estimates could be made of transaction costs, such as waiting time, though all indications are that these are extremely high in many public sector facilities.

Table 3.19: Household Utilization of Medical Services in Rural and Urban India, 1986-87

	RURAL	URBAN
	16,692	9,136
SOURCE OF TREATMENT		
PUBLIC HOSPITAL	17.7%	22.6%
PRIMARY HEALTH CENTER	4.9%	1.2%
PUBLIC DISPENSARY	2.6%	1.8%
SUB-TOTAL	25.2%	25.6%
PRIVATE HOSPITAL	15.1%	16.2%
NURSING HOME	0.8%	1.2%
CHARITABLE INSTITUTION	0.4%	0.8%
ESI DOCTOR	0.4%	1.6%
PRIVATE DOCTOR	53.1%	51.7%
OTHERS	5.2%	2.9%
SUB-TOTAL	75.0%	74.4%
TOTAL	100%	100%
AVERAGE AMT PAID TO AGENCY FOR TREATMENT (RS)		
GOVERNMENT	73	74
PRIVATE	77	80
ALL	76	79
AVERAGE TOTAL AMT PAID FOR TREATMENT (RS)		
GOVERNMENT	115	103
PRIVATE	85	91

Source: NSS, 42nd Round

3.66 NSS expenditure data also indicates little difference between urban and rural expenditures per episode. In the NSS sample, individuals seeking care from public sources paid a total of Rs. 100-115; they paid considerably less, Rs. 85-91, on average for private care.

Public Sector Services Reach the Poor?

Perhaps the most important question is whether the public sector providing [illegible] subsidized services to the poor. Data from NCAER (Table 3.20) indicate that in both urban and rural areas, low-income persons are in fact more likely to seek treatment from government doctors than are high income [illegible] (44 percent vs. 26 percent in urban areas; 40 percent vs. [illegible] percent in rural areas). It is worth noting, however, that for both low income [illegible] in both urban and rural areas, the private sector appears to be the preferred service provider.

Table 3.20: Type of Treatment Used and Average Expenditure per Illness Episode, by Urban-Rural Residence and Income Class

Urban

Type of Treatment	LOW INCOME % of Episodes	LOW INCOME Average Exp (Rs.)	HIGH INCOME % of Episodes	HIGH INCOME Average Exp (Rs.)
Government Doctors	43.9	122.05	25.7	126.32
Private Doctors	48.3	131.33	70.2	164.44
Homeopathic Person	1.4	46.57	0.2	51.30
Others	2.4	109.07	0.1	118.09
Self Medication	3.3	62.21	3.8	48.22
Total	100	122.55	100	142.60

Rural

Type of Treatment	LOW INCOME % of Episodes	LOW INCOME Average Exp (Rs.)	HIGH INCOME % of Episodes	HIGH INCOME Average Exp (Rs.)
Government Doctors	40.0	156.64	25.0	136.90
Private Doctors	54.6	131.27	74.5	215.01
Homeopathic Person	2.1	124.83	0.5	25.00
Others	1.2	115.49	0.0	
Self Medication	2.1	9.33	0.0	
Total	100	138.55	100	194.59

Source: NCAER Survey of Household Expenditures

Table 3.21: Service Use Patterns of Low and High Income Groups, All India, 1986-87

Type of Service	Probability of using Gov't Providers: Bottom 40% Urban	Bottom 40% Rural	Top 60% Urban	Top 60% Rural
Prenatal Care	69%	67%	50%	56%
Pediatric Care	72%	75%	51%	65%
Hospital Stay	74%	66%	55%	55%
Acute Treatment	34%	25%	33%	25%

Source: NSS, 42nd Round

3.68 The average expenditure for private services is at least slightly higher than for public services in all except the poorest group. Among rural, low-income households, NCAER surveys found that individuals pay an average of about Rs. 160 per episode when they go to the public sector, and about Rs. 130 when they seek care from private doctors. On average, better-off individuals do pay somewhat more than the poor for health care -- about 16 percent more in urban areas, and about 40 percent more in rural areas.

3.69 According to the NSS, as shown in Table 3.21, government hospitals provide 66 percent and 55 percent of the hospitalizations used by the bottom 40 percent and top 60 percent of the expenditure distribution, respectively, in rural areas; and 74 percent and 55 percent for similar groups in urban areas. In other words, public sector hospitals are by far the predominant source of hospital care for India's poor and also provide a significant amount of services to the non-poor.

3.70 Because of the differences in the frequency of hospitalization between expenditure classes, the composition of patients is more biased toward the better-off. About 44 percent of patients at rural public hospitals and 48 percent at urban ones are from the bottom 40 percent of the expenditure distribution (Table 3.22).

Table 3.22: Service Use Patterns for Low Income Groups

TYPE OF SERVICE	PERCENTAGE OF PATIENTS FROM BOTTOM 40% OF EXPENDITURE			
	GOVERNMENT FACILITIES		NON-GOVERNMENT FACILITIES	
	URBAN	RURAL	URBAN	RURAL
Antenatal Care	57%	52%	37%	40%
Pediatric Care	57%	50%	36%	38%
Hospital Stay	48%	44%	37%	32%
Acute Treatment	52%	47%	41%	46%

Source: NSS, 42nd Round

Table 3.23: Per Episode Expenditures by Source of Health Care

TYPE OF SERVICE	PROVIDER	AVERAGE PATIENT EXPENDITURE PER EPISODE	RANGE OF PATIENT EXPENDITURE	
			BOTTOM 40%	UPPER 60%
HOSPITAL STAY - URBAN	GOVT	385	137-696	218-945
	NONGOVT	1206	602-865	1,020-2,565
HOSPITAL STAY - RURAL	GOVT	320	191-495	238-429
	NONGOVT	735	515-783	649-893
ILLNESS TREATMENT - URBAN	GOVT	74	40-143	29-180
	NONGOVT	80	50-75	53-142
ILLNESS TREATMENT - RURAL	GOVT	73	51-74	50-109
	NONGOVT	77	46-73	51-134

Source: NSS, 42nd Round

3.71 Expenditure data on hospital stays is also available (Table 3.23). Expenditure per episode in a public hospital is on average less than one-third the cost of a private hospital, although this is without controlling for case mix. Poorer patients report lower expenditure levels than richer ones in both public and private facilities.

3.72 Information on acute treatment contrast sharply with the hospitalization picture. For the poorest 40 percent, government providers account for 25 percent (rural) and 34 percent (urban) of acute treatment contacts, and 25 percent and 22 percent, respectively, for the upper 60 percent of the expenditure distribution. However, patients from the lower expenditure group make up 47 percent (rural) and 52 percent (urban) of the patients at government facilities. The bottom four deciles of the expenditure distribution also comprise more than 40 percent of the patients at non-governmental providers, suggesting that they may have a greater propensity to use acute treatments than the better-off group.

3.73 Expenditures on illness care show little difference between government and non-government sources, or by economic class. Again, this contrasts with the hospitalization data, in which there are sizeable cost differences between public and private sources of care, and differentials in expenditure by economic class. This suggests that users may perceive little financial difference between public and private providers for acute treatment and may explain, in part, that much more limited role played by public sources of treatment.

IV. STRUCTURAL CAUSES OF IMBALANCES IN THE HEALTH SECTOR

4.1 As long-term trends in budgetary allocations have suggested, and as GOI's recent response to structural adjustment has indicated, the system of health planning and financing in India does not facilitate achievement of the stated goals of increasing equitable allocation of health resources. In this chapter, we look directly at how the structure of the public sector's financing of health services affects the allocation of resources to the needs of the poor and how inefficiencies and inappropriate packaging of resources hinder equitable service provision. The analysis examines the center, then the states, and finally the center-state relationship.

4.2 This is not intended as an exercise to arrive at an exhaustive list of the ways in which health sector spending reinforces inequities. Rather, it is an attempt to identify the spending patterns that can be affected by policy reforms to achieve the greatest social benefit.

A. The Center

4.3 As shown in Chapter 2, the center plays a limited direct role in resource allocation in health. However, there are four ways in which the central government can influence overall resource allocation in the sector: (a) it sets national policy and establishes goals and norms; (b) it demonstrates priorities to the states through its own discretionary spending; (c) it funds, in part or entirely, programs such as the vertical communicable disease control schemes that are administered through the states; and (d) it initiates new projects under the plan budget, which are then expected to be taken over by the states in subsequent plans. (The first two are described in this section; the second two are discussed in section C on the nature of the center-state relationship.)

Norms and Targets

4.4 In setting norms for distribution of facilities and manpower, the central government typically has based its recommendations on population size. For example, the targets for construction of the entire primary health network of Sub-Centers, PHCs, and CHCs are all based on population. Norms are uniform throughout the country, with slight modifications for tribal and hilly areas. The uniform distribution of resources over a very diverse population is an attempt to engender uniform access. The poorer rural areas are seen as requiring the same per capita level of public health services as the better off ones. Although the poorest communities at least benefit in equal measure to wealthier communities, the government stretches its budget constraints to the limit and provides much less of a subsidy to the poor than would be possible with less expensive but more carefully targeted programs. In sum, the norms over-reach the budget.

National Priorities

4.5 The budgetary choices made by the central government demonstrate national health priorities. If, for example, the government protects funding for primary health and communicable disease control in the face of cuts, this is a clear manifestation of a commitment to providing the types of services that benefit the largest population, and that disproportionately benefit the poor. If, on the other hand, budgetary stress leads to relatively large cuts in such programs, while protecting programs that have fewer externalities, quite a different message is sent.

4.6 Due to historical patterns of spending by the central government, there is little room for flexibility in plan spending, and still less in non-plan spending. As shown in Chapter 2, medical education and research consume 35 percent of the center's revenue expenditure[1]/. Commitments to the Central Government Health Scheme account for 14 percent, and 10 percent goes toward central government hospitals and dispensaries. This leaves little room for spending on public health programs, and less for primary health care, apart from indirect flows to that program through the family welfare budget.

Public Support for Medical Education: Unwise Use of Funds at the Center

4.7 The allocations to medical education serve as an example of the ways in which priorities in central level spending may reinforce existing differentials in resources between rich and poor. In concept, the center has taken the responsibility for supporting medical education under the assumption that this is a means of providing quality training for doctors who will enter the public health system. To some extent, this has happened: nearly all public sector doctors attended publicly-supported medical schools. However, more than three-quarters of India's medical graduates enter the private sector. The vast majority of private doctors establish practices in urban areas, while rural areas remain underserved. In the past, many have migrated, taking the precious public investment in their education to industrialized countries (see Statistical Annex 5).

4.8 These doctors benefit personally from the public investment, but the social returns are small. Funding of medical education by the public sector, without either cost recovery in education or effective bonding of graduates into public service, results in a net flow of resources to better-off populations both within and outside of the country. Under fiscal constraints, other facets of the health system, with greater externalities, become underfunded.

1/ Revenue expenditure including grants-in-aid to the states.

B. The States

Budgets at the State Level

4.9 At the state level, where most health spending takes place, the existing differentials between richer and poorer communities, and between urban and rural areas tend to be reinforced by the level and pattern of health spending. This happens through the overall allocation to the health sector from the state budget. This is a function of: (a) each state's ability to collect the taxes; (b) the share it receives in central taxes, statutory revenue gap and upgradation grants it obtains from the center; and (c) the competing demands of other sectors within the budget. It is nearly a tautology that the poorer states have a lower capacity to raise internal resources. Thus, without effective redistribution through the powers of the central government, poorer states, which have greater health sector requirements, have far fewer resources with which to work. And in the poorer states, health may be seen to have a lower priority, relative to industrial production, agriculture, irrigation, or other economic sectors. The disparity in the ability and willingness of states to spend on health is clearly reflected in their budgets: Between 1985 and 1988, per capita total expenditure on health, water supply and nutrition in the richest state was 2.7 times greater than that in the poorest state (Tulasidhar, 1992). There is every sign that, in the poorer states health services delivered by the state in poor areas are already below an acceptable minimum, because of structural inefficiencies aggravated by inadequate funding, and are deteriorating further.

4.10 Trends in health spending, as described in Chapter 2, suggest that both the state and the central government are decreasing their commitments to the sector. Between 1974/78 and 1986/89, for example, the relative share of health in the 15 major states' revenue expenditure declined from 7 to about 5.5 percent.

4.11 States devote an estimated 45 percent of their medical and public health revenue expenditures to medical relief activities that are not identified as PHCs or rural dispensaries. For the most part, this is support for public hospitals, which are located in major cities and provide free or very highly subsidized in- and out-patient care, regardless of ability to pay. Cost recovery has declined in public hospitals over the 1980s, further moving the burden for individual curative care off the individual and onto the state (see Annex 4).

4.12 Monies that states do allocate to the health sector -- on average less than 1 percent of state domestic product, and 6-8 percent of total state revenue account spending -- rarely are targeted to reach the most disadvantaged populations. A large share of state spending typically goes toward hospitals, benefitting a small number of individuals, and at the same time drawing resources away from public health activities that have the potential to benefit broader, often poorer, segments of the population.

The Disposition of the States' Budgets and Growing Tertiary Level Commitments

4.13 In India, as in many other countries, public sector support for hospital-based curative care in urban centers has become a severe drain on public sector resources. As the costs of providing medical care increase, and demand expands due to population growth, urbanization, aging of the population and other factors, hospitals increasingly compete with public or community health programs for the state's resources. The state is placed in the uncomfortable position of choosing between providing immediate care for identifiable individuals -- those who walk in the door of the public hospital in the capital city, for example -- versus funding programs that may have longer-term benefits for a wider, less well-defined community.

4.14 Spending on hospitals not only has the effect of drawing scarce resources away from public health efforts. It also reinforces rural-urban differentials in access to health services. The balance is tipped even further in view of urban populations access to these hospitals which are operated by town councils. (see Annex 5 for a description of the role of local bodies in health spending).

C. The Center-State Relationship

4.15 The relationship between the central and state governments in India is fraught with legal and bureaucratic complexities and is the subject of intense debate that is highly politicized. On a grand scale, in concept, the central government has the power to unite the country under one administration, and to some limited degree, to redistribute resources across states.

4.16 The relationship between the center and the state governments in the health sector occurs at two distinct levels. First, in the overall allocation of resources by the center's Planning and Finance Commissions to states, which constrains or provides opportunities for states' initiatives in new projects. Second, in the intra-sectoral allocations of grants-in-aid and other

earmarked funds from center to state. It is this second level that is relevant to this health sector study.

4.17 Mechanisms used by the central government to fund health programs at the state level have the potential to reduce disparities in resources among states, and even within states. As currently organized, however, these mechanisms are not designed to overcome existing inter-state inequities. This phenomenon has been noted in many sectors (see the Second Report of the Ninth Finance Commission). In the health sector, it is manifest in the following ways:

(a) Some central schemes depend on matching funds from the states. A few of the centrally-funded communicable disease programs, including the largest one, the National Malaria Eradication Program, are funded on a 50-50 matching basis by state and central budgets. Some poorer states are unable to come up with sufficient matching funds to make optimum use of the program. It should be noted that even the 50/50 matching schemes often require more than 50 percent contribution by states, since overhead and some other recurrent costs borne by the states are excluded from the estimate of total program cost. Our estimates indicate that states financed about 93 percent of public health spending, far more than a 50-50 share. Poorer states are least able, but most in need of supplementing central allocations to these programs;

(b) The central government has gone into debt to the states. In recent years, the family welfare program and a few other centrally-sponsored schemes have fallen behind in their payments to the states. Therefore, the states effectively have been paying for schemes that were supposed to be centrally-funded. Over the medium- to long-term, these debts will be repaid. However, in the short-term, it is the states that can least afford additional, often unanticipated, outlays that suffer most;

(c) Plan schemes revert to non-plan schemes after five years. States are wary of participating in projects initiated by the central government under plan budgets, since participation implies that the state will bear the responsibility for recurrent costs in subsequent plan periods. For example, extensive construction of PHCs under one plan period can become a severe liability during the following period, when all operating costs must be found within the non-plan allocation, and the center withdraws assistance. The integration of Indian Systems of Medicine

doctors into PHCs. undertaken by the central government in many states in an earlier plan period, must now be supported by the states, which find themselves with additional personnel costs. Again, the better-off states are able to take advantage of plan projects to a much greater degree than are the poorer states, though they may require the efforts less; and

(d) The Family Welfare budget pays for the staff of PHCs.

4.18 In sum, the health sector budgeting process and structure limit the ability of the central and state governments to overcome existing differentials in the resource base. From a policy perspective, reform in the health sector depends on the ability of both central and state governments to target better their spending toward the needs of the disadvantaged populations. This, in turn, will require modification of the ways in which budgets are constructed, and in the nature of the relationship between center and state governments. Such recommendations are presented in Chapter 7.

V. THE NATURE AND CAUSES OF INEFFICIENCIES IN THE PUBLIC HEALTH CARE DELIVERY SYSTEM

A. A Critical Interlock: Efficiency, Morale and Equity

5.1 Policy makers, administrators, and interested commentators on the Indian health sector agree that there are considerable inefficiencies in the health care delivery system. These inefficiencies stem from long-term trends in health sector organization and spending, and from the more immediate consequences of structural adjustment.

5.2 It is also widely acknowledged that staff morale is low in general, with some notable exceptions. Low morale stems, in part, from poor management, but also from staff being placed in circumstances under which they cannot achieve desired results. Inefficient allocation of resources or under-funding prevents staff from performing; they are faced with shortages and unsuitable blends of resources, or are themselves inappropriately trained to use the available resources to respond to circumstances. As a result, they do not deliver the most effective health care. Efficacy of health care delivery is very sensitive to the combination of resources available at the point of health care delivery, the PHC or SubC.

5.3 If public sector resources are inappropriately combined -- poorly packaged -- then staff weaknesses are exposed and inability to respond to job description or to patient needs erodes motivation and morale. In some instances, an absence of critical inputs hampers health care provision to the degree that the system becomes paralyzed. A combination of low efficiency and cumbersome logistics means that deteriorating services are poorly delivered, especially at the margin. It is the most marginalized rural and urban populations for whom the problem of quantity and quality of government services is most acute.

5.4 Inefficiencies are of particular concern in India today for two reasons. First, there is a very high opportunity cost for any wasted resources in a country which devotes relatively little (especially of its plan outlay) to the health sector. If investments are made in facilities or training of personnel -- for example, PHCs and SubCs are constructed, or physicians are trained at the government's expense -- and yet because of inappropriate mixes of inputs, poor maintenance or staff vacancies, health services of an acceptable level are not provided, the system has experienced a tremendous resource loss. Second, in a time of budgetary contraction, the only means of maintaining or improving services is through gains in efficiency.

5.5 This chapter highlights causes of inefficiencies that result in poor health service, and sets the stage for recommendations in Chapter 6. It should be noted throughout that assertions always allow for regional diversity, and generalizations should be evaluated with this in mind. A critical inefficiency in a poor state could easily be overcome in a state with a higher per capita income and better infrastructure.

B. Optimal Combinations of Resources for Efficiency: Packaging

5.6 In the provision of health care, planners and managers find it difficult to ensure the appropriate blend of resources, properly trained staff, drugs, and other consumables, together with appropriate infrastructure, at all levels of the health system.

Inter-sectoral Blending of Resources

5.7 At a sectoral level, provision of health care is not closely enough linked with infrastructure and service provision from other sectors. This is clear at the margin of primary health care provision in poorer states. In hilly and tribal areas, the PHC or the SubC is often the main form of government presence.

5.8 As shown in Table 5.1, which presents data from a recent study of quality of service provision in the rural health network (ICMR, 1991), only about 84 percent of PHCs are in villages with "pucca" (reliably passable) roads. For SubCs, only about half are in villages with good roads. In PHC villages, communication facilities and transportation services are present, in general; in SC villages, there is much less penetration of public infrastructure, and still less in the remote villages without direct access to the public health system.

Table 5.1: Developmental Indicators in PHC, SC and Remote Villages

INDICATOR	% OF PHC VILLAGES	% OF SC VILLAGES	% OF REMOTE VILLAGES
PUCCA ROAD	84.4%	54.1%	32.5%
BUS SERVICE	92.7%	70.4%	44.7%
RADIO FACILITIES ONLY	23.5%	45.6%	60.9%
TV FACILITIES	73.1%	47.8%	28.6%
ELECTRIFICATION	97.4%	88.7%	77.4%

Source: ICMR, 1991

5.9 Major gains have been made in providing the rural population with a supply of good water, largely through the Minimum Needs Program. In fact, investment in water and sanitation has grown (though from a very poor beginning) at a much more rapid rate than investment in health. Seventh plan outlay for water and sanitation was almost equal to plan outlay for health and family welfare, combined. Despite this progress, much of the rural population still lacks access to potable water, particularly in the poorer eastern states.

5.10 The lack of public infrastructure, from communications to water supply, has two effects on the health sector: First, the health of populations in remote areas is adversely affected by their environmental conditions, and the resulting morbidity may place a strain on limited public health resources. Second, poor living conditions, with no schools or other public facilities results in high vacancy levels among public sector employees, particularly among professional medical personnel who have opportunities in more developed regions.

5.11 In these cases:

(a) The investment in primary health care does not benefit from externalities and reinforcing benefits that would come from a more integrated government package. For example, efforts to give medical care are much enhanced by contemporaneous

provision of at least basic education. Many PHC costs would be eclipsed had suitable sewerage and sanitation arrangements been made contemporaneously with the establishment of the PHC;

(b) Primary health care is weakened by the complete dependence upon its own internal logistics which, especially at the margin -- at the end of supply and supervision lines -- become stressed; and

(c) Extreme stress is placed on the staff. In the absence of their families (in school at district-level centres) Medical Officers-in-charge absent themselves frequently. In their absence, PHC service is diminished with lack of supervision. ANMs also commute to villages where it is considered unsuitable for them to be a permanent presence, even though integration with the village society is one of the keys to their success.

5.12 Effects of lack of inter-sectoral support are not limited to primary rural care. The unreliability of state grid-provided power, or the failure of water supplies (in volume or quality) reduces effectiveness of health expenditures in hospitals, as well.

Intra-sectoral Blending of Resources

5.13 Programs within health are implemented with insufficient coordination. The PHC officers lack detailed logistical links with the vertical communicable disease control programs. When resources are scarce, medical and health programs become effectively competitive, rather than complimentary. Thus the family planning activities, so strongly target-driven, tend to crowd out other activities, rather than stressing that they are alternative approaches to improved health status.

5.14 Vertical programs are carried out with insufficient reference to one another, even when directed at similar target populations. The use of multi- purpose health workers, while perhaps sound in theory, has not had a beneficial result for many of the disease control efforts. It is reported that the current system is one of confused aims, with imperfect multi-reference supervision, high vacancy levels, low morale, and a conflict of loyalties. The staff trained under one high-priority program may become a liability that hinders the objectives of new projects. This is often because of inappropriate training, poor job descriptions, an unworkable blend of authority and technical skills at points of health care delivery, and a weak chain of administration and logistics. Contradictory and uncoordinated messages to target groups result, breeding confusion. Legitimate demand for health care is perhaps suppressed, especially among the groups least able to express it,

who turn away from public provision toward more costly alternatives. Micro level studies are underway to evaluate these problems.

Packaging of Medical Logistics

5.15 Weaknesses in the drug procurement, storage and distribution systems result in a sub-optimal drug blend at facilities, especially in the more remote rural areas. Wastage, mal-prescription and patient diversion either through inappropriate referral (to the public hospitals), or transfer (at private cost, to the private sector) of patients occurs while SC and PHC infrastructure remains under-utilized.

5.16 Poor resource packaging includes the provision of vehicles to PHCs (and other points of care delivery) with too little fuel, and perhaps without drivers. In extreme cases, critical elements are missing altogether, especially when budgets are under pressure, and when cuts are unrelated to medical logistics.

5.17 Drug supplies are a particularly vulnerable input, for several reasons. First, they are relatively costly items, and recent changes in drug pricing and import policies have led to a rapid escalation of drug costs to the public sector. States now report that they must spend up to three times as much per unit of medicine as they did one to two years ago. Second, in India (as in many countries) there is substantial leakage of publicly-purchased medicines into the private sector. Reduction in this type of leakage depends on advanced systems of inventory control. Third, medicines are perishable items, so there is potential for substantial amounts of wastage. At the same time, drugs are a particularly important input into the health system, both because they provide health benefits and because their presence reassures patients that quality service is being provided. For these reasons, chronic shortages of drugs in PHCs and SubCs is a problem that is difficult to solve, and has wide-ranging negative effects. There is a need for supporting drug provision under adjustment.

5.18 The severity of the problem was quantified in the ICMR (1991) study, which evaluated the inventory of essential medicines available at PHCs and SubCs. As shown in Table 5.2, 37 percent of the approximately 400 PHCs studied had insufficient (or no) stocks of analgesics and antipyretics; nearly 60 percent were lacking antibiotics; and about half had insufficient stocks of anti-hypertensives. Most disturbingly, perishable vaccines, including measles, BCG and polio, were unavailable in sufficient quantities in 23-32 percent of the health centers. The situation was found to be still more acute at the Sub-center level. Of the drugs that were supposed to be present at the SubCs, most were not in the vast majority of centers. It is interesting

to note that, while basic medical treatments were in short supply, very few health facilities were lacking in the standard levels of contraceptive commodities, for which discrete budgets are available to establish stronger logistical support.

Table 5.2: Availability of Medicines at PHCs and SubCs

MEDICINE	% with None or Inadequate Stock PHC	SC
ANALGESICS/ANTIPYRETICS	37.2%	55.2%
ANTIBIOTICS	57.5%	80.3%
ANTIDIARRHEAL	26.1%	53.3%
ANTISPASMODIC	36.4%	
ORS	21.6%	47.2%
ANTIMALARIALS	13.3%	46.8
ANTIHISTAMINES	43.2%	
SEDATIVES	35.7%	84.8%
ANTIASTHMATICS	42.2%	84.5%
ANTIHYPERTENSIVES	48.0%	96.6%
BCG VACCINE	27.6%	
POLIO VACCINE	23.1%	
DPT VACCINE	8.8%	
TT VACCINE	7.5%	
MEASLES VACCINE	32.2%	
IUDS	5.0%	
ORAL CONTRACEPTIVES	8.8%	
NIRODH CONDOMS	6.0%	

Source: ICMR, 1991

Packaging of Human Resources

5.19 The considerable achievements of the Indian health sector are mirrored in the large stock and quality of trained and practicing medical manpower in and outside the country (see Chapter 3 and Statistical Annex 5). But characteristics of this large stock of trained personnel also imply a need for flexibility, redirection, and enhanced selected investments to improve quality and efficacy of service.

5.20 Ratios in employment of doctors, paramedical staff and nurses do not reflect optimal functional relationships. Numbers of nurses in the system are today related to number of beds, rather than to a doctor support function. This results in the inefficient and inappropriate employment of doctors to carry out functions equally well (or better) and more cheaply carried out by nurses.

5.21 Despite the relative abundance of doctors in the Indian system, (Chapter 3) there are great variations in the physician supply across states and, more obviously, between urban and rural areas. In Andhra Pradesh, for example there are about 53 government doctors per 100,000 population; in Madhya Pradesh, there are only 14 doctors per 100,000.

5.22 Aside from the problems associated with uneven distribution of medical personnel, there are inefficiencies related to the responsibilities given to doctors. Doctors placed in the CHCs and PHCs have a largely managerial role. Yet their medical college education has not prepared them for this. They are untrained to monitor expenditures, manage stores, maintain buildings, take decisions about personnel or supervise others working in diagnostic or preventive tasks. Doctors tend to assert a managerial role -- because of lack of training and the strongly rigid hierarchical service -- that is punitive with too little problem-solving. This approach has pervaded the empirical approach to targets that has damaged family planning programs.

5.23 Lack of a management cadre means tertiary care institutions are also managed by doctors, promoted into management positions without regard to the criteria needed for effective management. Yet neither type of management skill is the subject of in-service training.

5.24 Within the medical discipline there is inappropriate blend of doctors' skills. Diagnostic skills most in demand in the rural areas, at district hospital level and below, are not stressed in medical college. There is a lack of social content in medical teaching; community health issues do not feature in medical colleges. This is not redressed by in-service training or orientation before the urban-trained doctors (often of urban origin themselves, notwithstanding reservation policy) are posted to rural areas.

5.25 At various times, the public health system has made concerted efforts to integrate practitioners of Indian Systems of Medicine into primary care delivery, particularly in remote areas. It was perceived that ISM doctors would provide care that was culturally acceptable, and would be more willing than allopathic doctors to take up service in rural regions. However, in practice it appears that the links between the ISM and the allopathic systems have failed to strengthen the service in the manner imagined.

5.26 Among paramedical staff, male multi-purpose workers are more likely to be in short supply than are the ANMs. This is due to the financing arrangement: the family welfare budget, coming from the central government, funds the ANMs, while the multi-purpose workers are funded out of disease control schemes, with the funds usually coming from the

state's contribution to the malaria eradication program. Because the family welfare funding is more secure than the state's contribution to the disease control program, it is easier to hire and retain the female workers.

5.27 There is a need to closely consider the staffing norms, to determine whether they reflect the actual needs of PHCs and CHCs. Rationalization of manpower patterns would entail a substantial effort, but would have the benefit of increasing efficiency of both health and health training investments.

C. The Outcome of Inefficiencies: Inequity and Inappropriate Referrals

5.28 An outcome of these deficiencies is the inefficient referral system. In terms of equity of health service delivery, inefficiencies are of most direct impact at primary level. But their effect exacerbates weaknesses in provision of hospital care, as well.

5.29 Patients' perceptions of shortcomings in public sector primary health care result in bypassing of SubCs and PHCs, with two main impacts:

(a) Individuals, even many of the poor, have initial recourse to the private sector, rather than using the public sector as first choice: and

(b) Those who do use the public sector either: (a) find themselves referred quickly from PHCs to hospitals because of unwillingness of PHC staff to accept responsibility or inability to prescribe appropriately (often because of drug shortages), or (b) bypass the PHC and head straight for out-patient care at hospitals. This is not an effective pattern of referral.

5.30 In both instances, this process incurs higher than necessary private and public costs. The impact upon the public sector is to exacerbate the expensive structure of health provision by overweighing demand for hospital care.

5.31 Overall, the inefficient investment in primary care aggravates congestion in hospitals, and introduces inefficiencies at this most costly level, while diminishing further access of the rural poor to public sector health service. The drive should be to increase efficiency.

5.32 Enhanced efficiency would result in a disproportionate increase of resources available to poor, leaving more resources for better primary care. It would ease pressures on tertiary care, enable its standard to be

approved, and pave the way for cost recovery at tertiary level. This is the challenge that faces the system under structural adjustment, and is the basis for recommendations presented in Chapter 6.

VI. ADJUSTMENT, EFFICIENCY AND ENHANCED CARE FOR THE POOR

6.1 The impact of adjustment-induced fiscal contraction on the health budgets is already visible from the current (1992/93) central budget; more will be known as the state budgets become available. If the speed with which the health sector adjusts its expenditures to promote efficiency is less than the pace of adjustment, then cutbacks could occur at random with the potential for the system to become even more inefficient and/or regressive. There is a great merit in appropriately planning the budgetary cuts rather than accepting the cuts passively all along the line down to the PHC and SC level. Unplanned cutbacks -- as much as unplanned enhancements -- could typically result in the elimination of spending items that do not enjoy a lobby, but whose cutting could further impair efficiency as well as equity. Protecting critical health inputs during adjustment is crucial; to this extent, adjustment is both a challenge and an opportunity to enhance efficiency and equity.

6.2 How serious is the problem of cutbacks? How do the states and the center exercise options? Although the states' own resources fund a substantial proportion of health investments, the total financial flows to the health sector may be affected if central allocations to specific programs decline. For example, this has already happened inasmuch as the central plan allocation to malaria control has declined from 83 crores in 1991/92 to 50 crores in the plan budget for 1992/93. States' own resources to the health sector may also contract. If the overall (central and state) allocations are reduced to the health sector (which is a strong possibility in the resource-poor states), two scenarios can be visualized: (a) a proportionate and undifferentiated cut is effected on all programs/components, or (b) cuts are effected on specific programs/components after a careful consideration of choices.

Options with Fiscal Cutbacks

6.3 The easiest option is to effect a proportionate cut on all programs. Indeed, field visits to hospitals and PHCs, as well as discussions with senior health officials in the state governments strongly suggested this possibility. An undifferentiated, proportionate decline on all items and programs would very likely lead to slower progress in improving health

outcomes in the weaker states. In such a case, the most likely possibility (already reported in both rural and urban hospitals, and rural primary health facilities) is that salaries to staff will be maintained, but cuts will plague medical supplies, drugs, and equipment. It is well known that the quality and management of health services is already problematic in these states: clearly it will worsen with the drying up of complementary inputs[1].

6.4 If governments have to exercise choice in effecting cutbacks, what should be the guiding principles? Given the pressure on public resources, the governments, both central and the states, should now focus their expenditures on those services, programs and critical inputs that have the largest externalities, and are crucial for improving the overall efficiency of delivery. Discussion in the previous chapters has argued the importance of maintaining a blend of inputs for effective primary care delivery, and the deterioration in this attribute over the last five years. Further budget cuts will only exacerbate the problem considerably. Inappropriate blend of inputs, poor packaging of complementary supplies and generally poor quality of services has been extensively documented for family planning (Stout 1988), health (Chatterji 1990) and nutrition (Subbarao 1990).

6.5 If cutbacks are preceded by a careful consideration of choices, then clearly there is much to be gained. Adjustment is basically a move to facilitate the flow of resources from less productive to more productive uses in both private and public sector operations. That principle should apply to the health sector as well.

Achieving Gains in Efficiency with Fiscal Cutbacks

6.6 To facilitate more productive use of resources already invested, it is essential to ensure complementary supplies of inputs and an appropriate blend of paramedics at the primary health center level where the externalities are the greatest, and the prevailing returns to investment appear to be the lowest. This, by itself, would raise efficiency levels across the board to the benefit of the rural poor.

6.7 It is possible that resources may not be immediately available to ensure such a move towards more **functional** PHCs. If so, a beginning could be made to prioritize the selection of PHCs for reform. Such priorities might start first with the very poor tribal blocks, unirrigated (semi-arid and

[1] Such indiscriminate cuts in basic health will probably have quite a short time lag in adversely affecting health outcomes. While there are no comparable estimates or studies for India, a recent, long time series analysis of the effects of changes in public health spending on infant mortality in Sri Lanka indicates strong effects (of cutbacks) in the current year as well as sustained lagged effects (see Anand and Ravallion, 1992).

dry) zones, and gradually up to the relatively richer irrigated zones which are currently better served than the poorer areas by private practitioners.

6.8 It is better in terms of efficiency enhancement, health outcomes and reductions in inequities to pool resources and channel them in appropriate blend to at least a majority of PHCs in regional concentrations of poverty to render them functional and dependable rather than spread the scarce resources thinly over all PHCs. In sum, the present policy of uniformity of spending should be replaced by a more appropriate mix of resources, supplies and manpower concentrated more heavily upon poorer areas, for which alternative privately supplied medical services are not readily available. This policy could ensure the highest return to the marginal rupee invested which is so basic to the success of economic reform without worsening of equity.

Maintaining the Emphasis on Primary Health Care Under Adjustment

6.9 Morbidity and mortality patterns in India differ by regions and by social/income classes. As already noted, the middle class and the affluent are beginning to experience the "life-style" diseases, whereas the poor do not seem to be adequately protected from the life threatening communicable diseases. Available evidence suggests that the morbidity from diseases like malaria which strike during the peak agricultural labor demand season cause considerable damage to poor households as well as to the economy -- loss of wage income (and consequential indebtedness) to the poor households and loss of productive man-days to the economy, driving it towards a lower production surface. Thus, considerations of efficiency as well as equity strongly favor continuing public support to the major disease control programs, again ensuring an appropriate blend of inputs and manpower.

6.10 Yet the very first budget under adjustment offers no perceptible moves towards greater efficiency or equity in the health sector, whatever be its merits in bridging the fiscal deficit.

6.11 For the first time in the history of India's planning, allocations to communicable diseases have been drastically slashed; these reductions run counter to the logic of adjustment, to the extent that externalities of investment in communicable diseases are by far the largest. Considering that emerging diseases like kala-azar are further aggravating the communicable disease situation in poor states like Bihar and Uttar Pradesh, such cutbacks are likely to erode the capacity of these poor states to face up to the challenges. In fact the consequential decline in morale as well as outreach is bound to further reduce program effectiveness.

Budget Processes Under Adjustment Seem Regressive

6.12 The new budgets, although facing a period of crisis and the need for a social safety net, have practically no innovations to overcome the regressiveness of partially and fully funded central programs, nor even in plan schemes. With respect to the former, even if 50:50 sharing of expenses is offered, most poor states which are unable to match resources simply tend to lose central allocations, as noted in Chapter 4. Even in the case of fully centrally funded programs, the poorer states tend to lose, because of the central policy of arrears, i.e. the center's insistence on the states to spend first, and only then claim reimbursements. Some poor states do not have cash flows. They simply fail to take advantage of the schemes.

6.13 Even under the minimum needs program, the allocations are population-based, and not based on the distribution of poor population. Furthermore, the plan schemes are transferred to the states after a given time: so the states, for fear of financial overload as plan schemes become non-plan schemes, often opt not to take up new projects. Alternatively, they accept the new projects, but make virtually no financial provisions for the maintenance of old projects and programs, and non-plan funds virtually exhaust with salary payments. Indeed, plan outlays as a proportion of total outlays gradually declined over time, virtually leaving no room for manoeuvre for mid course correction of priorities, while non-plan outlays tend to be consumed in salaries. These factors render central allocations both inefficient and regressive.

6.14 A rising share of non-plan allocations is now going to salaries, effectively cutting non-salary inputs. Even in the present budget, no efforts are made to improve non-salary components so that vehicles go with oil, PHCs with cold chains, x-ray units with films, and so on.

Adjustment, Blending of Resources and Efficiency

6.15 At a macro level, the budget also does not refine packaging of inter-sectoral outlays that have a potential to maximize returns to health investments. Equipping PHCs with water, sanitation, proper housing and security is crucial for efficient delivery of service. Yet, plan allocations under the budget are cut for water and sanitation.

6.16 Creating a balance between doctors and paramedics requires long-term planning, but in the interim flexibility in the personnel allocations can go a long way in restoring that balance; moreover, since movement of money across sectors/programs is difficult, moving people appears to be the best strategy to redress manpower shortages. Such intra-departmental personnel moves can also overcome seasonal overloads, such as with the sudden outbreak of epidemics. To facilitate gains in efficiency of health services more flexibility could be introduced.

Adjustment as a Stimulus to Cost Recovery

6.17 An immediate measure that would ease fiscal pressures on communicable disease control programs and PHCs would be to protect the primary health care budget from the demands of hospitals. This is possible by charging user fees from the middle income and high income groups for curative services, ensuring that the poor get free services as in the past. Such moves may not conform to the original intentions of the health planners to provide universal free health care, but they certainly ensure that at least the poor have access to free services.

6.18 At present, because so few and such small user fees are charged, there is excess demand for services: hospitals are crowded and often the resourceful or influential people get easy free access. In contrast, the poor often incur "transaction costs" to get access to treatment and hospital beds. Those poor who could not afford these transactions are effectively shut out of hospital care: instances of poor patient diversion are too common to be stressed. Graded cost recovery from the non-poor would restrict demand for beds, thereby releasing substantial places for the poor. Thus, user fees are a step towards restoration of equity: the poor should benefit proportionately more than the non-poor. At the same time, hospitals would depend less on the public exchequer for incremental resources thereby ensuring a pro-poor alignment of public resources. In sum, cost recovery at hospitals benefits the poor in two ways: (a) more resources to the primary health care and communicable disease control programs; and (b) easy and free access to hospitals.

Effective Cost Recovery Needs Independence

6.19 Cost recovery is a worthwhile proposition to hospitals only if they are able to plough back the resources raised internally for hospital improvement. At present, the government hospitals that do have some cost recovery have to surrender any revenues resources to the common pool. This is a disincentive to raise resources in the first place. Granting autonomy to public hospitals with a proviso to ensure that the poor are freely

entertained would create the necessary enabling environment for raising internal resources. This is already being attempted in some states, such as Andhra Pradesh, and can be emulated in other states and at the central level institutions.

Adjustment and Regional Diversity

6.20 The above policies need not be followed with uniformity throughout the country: regional diversity in hospital and PHC efficiency is so considerable that no generalized policy prescriptions should be offered. For example, user fees may not yield great returns in regions where poverty is widespread. In some instances, any amount of redeployment of resources and manpower may not yield returns because health is already so under-funded. Detailed, region-specific policies are beyond the scope of this report, but are an important step and one that comprises an important context to the short term across-the-board cuts that appear to have been made hitherto.

Maintaining Health's Budgetary Position Under Adjustment

6.21 To sum up the argument, health has no doubt lost ground under the current budgetary pressures. But adjustment-induced pressures on resources need not promote despair or resignation. Instead, appropriate, immediate and fairly simple policy changes can greatly improve efficiency, render the institutions and programs of direct relevance to the poor more functional and efficient, encourage internal savings within the health sector and promote equity of access.

6.22 The most critical of such policies are those aimed at ensuring non-salary inputs in optimal combinations at places and times most needed, restoring funds to the disease control programs, and streamlining procedures for the timely release of central funds to the states. These short term policy changes promote equity via enhanced efficiency: a most desirable outcome during adjustment.

6.23 But these are only short term measures. India's health sector has fairly deep-rooted structural distortions and systemic imbalances that can be eased only by introducing longer term policy changes. These are discussed in the following chapter.

VII. MEDIUM-TERM POLICY CONSIDERATIONS: THE REFORM OF FINANCING FOR ENHANCED OUTCOMES AND EQUITY

A. Medium-Term Objectives

The Health System at a Cross-Roads Today

7.1 In the face of budgetary pressure and the start of the adjustment process, the health sector faces a critical decision point today. With the inevitable variability in economic and social progress across states and social groups that has emerged over the last 40 years, coupled with a much larger health sector infrastructure that stretches existing budgets thin, has the time come to re-evaluate and re-deploy available resource to attack inequities that remain, or will existing approaches continue to yield significant gains?

7.2 A re-evaluation is appropriate. The years of expanding the health system to the village level, educating personnel to operate the system, establishing a logistics system to support it, and -- simultaneously -- adequately funding both hospitals and traditional communicable disease programs is a phase that is successfully completed. A new phase of consolidation and adequate support of recurrent costs is called for.

7.3 Although the extension of the system has made it more equitable overall, persistent inequities have emerged that require in some cases redoubled efforts and in others, innovative approaches to solve. The two areas of concern, adequate funding of the system and solving persistent inequities are closely related.

Resource Allocation, Efficiency and Equity

7.4 This report has described the main ways in which health financing is related to efficient and equitable provision of health services in India. It has reviewed resource allocation patterns and trends, and found that public health financing is characterized by an emphasis on hospitals rather than primary care; urban rather than rural regions; medical officers rather than paramedics (again with an urban emphasis); services that have larger private than social returns; and family planning and child health to the exclusion of the wider aspects of women's health. This pattern of resource allocation impedes the government as it seeks to provide the greatest level of benefit for the broadest community, and specifically for the poorest populations. Without determined change in policies, there is a danger that these patterns of low-return public expenditures will be reinforced rather than ameliorated.

7.5 Persistent disparities in provision, access and impact of public health services can be seen when comparing poorer states to wealthier states, rural to urban areas, workers in agriculture and the unorganized sector to those in the formal sector, and individuals with few resources to those with more. These persistent inequities are less related to availability of outlets for public services than for failure to fund them adequately to provide the personnel and supplies necessary to deliver health care.

7.6 Longer-term reform should be guided by the principle that public funds should flow increasingly into the areas presently most neglected by the health expenditures -- rural areas, community health services, and women's health care. Private funds should be directed, through cost recovery, into the areas of high private returns.

B. The Environment for Longer-Term Restructuring for Equity

7.7 It is difficult to translate intense fiscal stress into longer-term structural adaptation. The 1992/93 budget indicates preoccupation with the present and the near future. The time frame and political viability of reforms link with the states' different socioeconomic achievements. Action at the center is sensitive because it has some leverage and is needed to direct long-term reform for sustainable health care, aimed preferentially at the poor.

7.8 Recommendations for general restructuring must acknowledge the differences among states. The state budgets are very differently constituted, and revenues and priorities vary greatly from state to state. The states are therefore poised for different policy steps. Thus the time frame for reforms and political viability are closely related, and make action at the center sensitive.

7.9 Restructuring to enhance equity, as supported by this report, must also take into consideration that the constitution and center-state finances are finely balanced. It is not reasonable to consider health care finance as grounds for general restructuring. It is, however, feasible to find some room for positive change within the health sector.

7.10 The aim of these recommendations is to set directions for long-term reform to achieve equitable, sustainable public health programs, directed preferentially at the poor to redress the existing inequities, and at community health to achieve the greatest externalities from investment.

C. Basic Policy Aims and Recommendations

7.11 There is wide agreement over policy aims:

(a) Target public money to basic health care provision, including control of communicable diseases, that will disproportionately benefit disadvantaged populations;

(b) Enhance the quality of hospital care;

(c) Capture wider resources, through cost recovery, internalizing benefits for particular institutions; and

(d) Improve returns to private spending by benign regulation and selective encouragement of the private sector.

7.12 Several of these issues are of immediate concern and have been discussed above. This section is divided into two categories of action, leading practical actions and center-state budget recommendations.

D. Leading Practical Actions

Make Primary Health, Including Communicable Disease Programs, the Heart of the MoHFW Budget

7.13 The present health center and state budgets combine public expenditure of widely differing social benefits. The mix of education, primary, and hospital care disguises real cuts in specific programs within the overall budget, and blurs priorities in reallocation to secure efficiencies.

7.14 Therefore, medical education, research, and hospitals should be accounted under new, separate directorates' budgets, as the family welfare budget is. This separation would highlight top priority public expenditure for primary health provision, including: the Community Health Centers, the Public Health Centers and communicable disease programs. These expenditures should reinforce each other, with large benefits that reach beyond the individuals receiving care.

Independent Hospitals: Improved Quality and Resource Enhancement

7.15 Lesser priority for public expenditures should be given to hospitals. Increased cost recovery, moving back to at least the levels of the 1960s is justified. Cost recovery and greater administrative autonomy for hospitals will allow state financial support to decline.

7.16 Hospitals might be grouped for quality control under a Council for Hospitals to administer grants -- no greater than constant in nominal terms -- from center and state. Hospitals would administer these grants and funds raised through cost recovery independently. The cost recovery system would have prices based on local conditions, and would include provisions to protect the poor. Eventually government subsidies would be targeted specifically to needy patients.

7.17 In addition to the grant from the council, newly independent hospitals might be assisted by a package that would include: possible provision for critical items if needed to raise service to a basic acceptable level; management staff and/or training; (c) maintenance staff and/or training.

7.18 Studies using examples of success already operating in India would determine appropriate management and regulation, and ways to protect access for the poor, while charging the non-poor. These should be carried out under the supervision of the MoHFW.

Medical Education: Fees, Quality and Equity of Access

7.19 Medical education should pass to a Council for Medical Education, linked with higher education as well as health. Fees should be charged for medical education, since high private rates of return prevail, and there is no shortage of doctors in India. A suitable scholarship package could be linked with reservation policy, and incentives to serve in rural areas. Merit scholarships could contribute to maintaining high quality students.

7.20 Money raised through charging of fees should remain in the council's budget to facilitate development of its other functions. This should enable central funding to be in the form of a nominally constant grant, as with hospital funding.

Medical Training: Skills and Manpower Blends

7.21 The Council for Medical Education would also: (a) revamp medical education; (b) study manpower norms and evaluate incentives; (c) encourage suitable nurse and paramedical training; (d) establish in-service training; (d) coordinate medical research orienting it towards indigenous communicable diseases; and (e) regulate private medical colleges, encouraging innovation whilst protecting minimum standards.

7.22 Wider manpower issues would also fall under the aegis of the Council of Medical Education. It is important to ensure that human resources issues do not focus exclusively upon doctors. Interventions are needed to establish suitable scales and qualities of training for nurses and paramedics following evaluation of the staffing patterns in the sector. The Council should have technical support to supervise studies to address policies in this area.

E. Center-State Budget Recommendations

The Rank of Primary Health Expenditures in the Social Sectors Should be Enhanced

7.23 There has been a trend toward underfinancing of primary health care, including communicable disease control and other interventions that provide benefits not only to the individual but also to the larger community. This trend should be reversed, after disaggregation of the budget.

7.24 In the 1970s, the system was funded at a much higher level. Since then, spending per capita has risen because of expansion of the system, but is has fallen on a facility basis by 5 percent in real terms since 1986. This drop has been magnified for non-salary inputs as salaries have increased their share of expenditures. The central share of overall expenditures is also reduced. There is a strong case for elevating present spending to past levels.

Policy Over Centrally-Sponsored Programs

7.25 The potential leverage of centrally-sponsored programs to implement national policy is being under-exploited. Disbursement of center primary health expenditures should: (a) eliminate arrears in family welfare's account with the states; (b) consider contributions by the center for payment of some recurrent costs in communicable disease control and primary health care, to ensure that the existing programs operate efficiently; and (c) modify the criteria by which the center transfers funds to states to better target poverty and specific diseases.

Increase the Center's Role, but with Flexibility and Efficiency

7.26 Transfers of project-designated money, or even commodities (such as sprays) from center to state should be replaced by transfers of funds, on a menu driven basis, for areas of primary health care and communicable disease control. State governments could work from local needs and priorities; this would ensure accurate earmarking of money for the purpose

intended in primary health care and disease programs, whilst allowing more flexibility in response to regional diversity.

The Center's Regulatory Role.

7.27 With such a large share of care being provided by the private sector, the state's regulatory role should be upgraded. Quality control over drugs and delivery of private care services deserve scrutiny. The poor need more protection as patients.

Positive Approaches to Enhancing Primary Health Care

7.28 At district, block, and village decision making levels, efforts should be made to empower health officials by having them participate more fully in the planning process to integrate health with other sectors. This change would facilitate targeting and development of priorities based on village and block tribal composition, degrees of aridity and type of local economy. Enhanced supervision and positive management are integral to this, to generate new information flows. For example, in the face of such a large press of water-borne diseases in India, and recognizing that development of new water supply systems is housed in other ministries, the primary health program has a key role to play in monitoring and improving the safety of drinking water in villages.

Enhanced Supervision and Management of Primary Health Activities

7.29 Interventions to produce the correct blend of human resources for the health sector must be integrated with other aspects of resource allocation in the sector. Manpower must be suitably deployed. Village, small scale, primary and huge, urban hospitals are all rendered inefficient by incorrect staffing or by inappropriate combinations of staff with other resources.

7.30 Such structures need to be reflected in the budgeting procedures. Thus the correct combinations of staff with appropriate specialties is part of the wider packaging of the overall blend of inputs to medical care. Budgets need to be rationalized to support provision of physical infrastructure (power, water, buildings), maintenance, transport, drugs and other medical inputs to ensure that resources arrive at health service delivery points in a package that facilitates effective provision of care.

7.31 The process of rationalization is itself a lever that can at once free existing resources and -- by showing greater returns to expenditures -- can become a tool to justify greater resource allocation to health in its competition with other sectors also of high priority within the government's overall planning.

VIII. BANK STRATEGY IN FUTURE INDIAN HEALTH SECTOR FUNDING

A. Equity and Assistance at a Time Of Adjustment

8.1 This first health sector finance study enables the WB to take stock of its pattern and scale of assistance to the sector. It also facilitates the GOI's considerations of the nature and scale of external assistance that it might consider appropriate to the health sector.

8.2 The concern is to assist the government in reinforcing and promoting appropriate health financing and delivery approaches. The emphasis is to ensure sustainability -- administrative and fiscal -- to enable an efficient and effective system to emerge from the process of adjustment. This could mean a rethinking of choices and some difficult decisions on the part of both the WB and the GOI. This document and these suggestions to shape future directions of a Bank program of assistance are a first step in the discussion process. The outcome should be a joint program to enhance health delivery throughout India, and particularly to the poor and deprived. This will of course also be a perspective that might be of use to other donors, and of relevance to other social sectors in India.

8.3 Future Bank involvement in the health sector will, in the short term, rightly be influenced by the pressing demand to alleviate the impact of adjustment in this area of the social services. In the medium to longer term, the concern will be to enhance equity and efficiency of a sustainable delivery of primary health care defined to include the communicable disease prevention programs at primary level. An important facet of this is to ensure sustainable and effective hospital care that does not -- for administrative and historical reasons -- detract from a minimum primary health care budget.

8.4 The operational significance of the study's conclusions for the Banks' future program suggests actions that:

(a) assist the GOI by financing reforms and strategies that allow the government to fulfil its policy defined role of controlling communicable diseases;

(b) provide public sector primary care and protection for the poor: while

(c) at the same time, ensuring quality of hospital services and medical education, in part through regulation of the private sector health services.

8.5 The suggestion is as a result of the foregoing analysis that the Bank will therefore assist the GOI in a spectrum of actions to:

(a) reinforce and expand present GOI activities where they fall squarely within policy goals; and

(b) buttress the government's efforts at long-term reform that refine health provision and disease prevention programs, more effectively to meet the aim of provision for the poor. In the short term, this aim includes protection of the vulnerable from potentially adverse effects of adjustment.

B. Expanded and Refined Assistance to the Spectrum of Ongoing Projects

8.6 As highest priority, to facilitate the Bank's involvement in primary health care, support could be delivered though the following means and project areas.

Maternal and Child Health Activities

8.7 Maternal and child health activities are an expressed priority of the government. This report's analysis does not cause this to be questioned in principle. The Bank should continue its support.

8.8 Immunization programs and some support to PHCs, SubCs and CHCs exists within these MCH activities. They should, in the near future, be expanded to facilitate specific strengthening of the primary level delivery system. This should be with special consideration of improvements to

packaging of resources at SC and PHC level and in the enhanced administration of PHC dependent programs.

8.9 Also important is more effective and practical coordination with other programs. In particular, facets of MCH activities such as nutritional provision targeted to lactating mothers would gain from -- and yield -- externalities if better coordinated with other, wider nutrition programs.

8.10 There is also scope under MCH programs for direction of rationalization and upgrading of manpower resources within the health care delivery system. Higher priority for these items -- for example, attention to the widespread and serious problems associated with the utilization of ANMs -- would be appropriate.

Population Projects

8.11 The series of population projects has important relationships to health not operationally exploited at state or district level. The health implications of child spacing and safe motherhood practices could be tied more specially with other programs, especially under the threat of AIDS.

8.12 The delivery system of birth control materials is being strengthened -- with positive implications for PHCs and SubCs. But this effort at improvements must be integrated with overall improvements to PHCs and SubCs, with care being taken to avoid development of a parallel system of distribution.

8.13 Overall, the population projects' interaction with the PHC infrastructure should be consciously exploited to improve PHC operation, and to blend appropriate resources available and supportable at village level. This might involve redressing the crowding effect of family planning programs upon other activities in order that the family planning activities operate as and are perceived as a true complement to other health related activities.

Nutrition Projects

8.14 Refined targeting and coordination remain a high priority. Targets are likely to shift fast under the impact of adjustment. As patterns evolve, information and targeting information are of wide relevance to other primary level health activities.

8.15 Nutrition-related activities ought to be the element of Bank assistance that is most finely targeted towards indices of poverty and deprivation. It is again, by definition, related to raising standard amongst the poorest. The prime role of nutrition in poverty alleviation suggests very particular relationship with primary health care that is as yet only nascent.

Education Projects

8.16 Also of particular importance in terms of externalities is provision of education, and especially female education.

Rural Water Supplies

8.17 Here the call for inter-sectoral coordination is very strong. Many public health and primary health care concerns are water-related. These span narrow logistical, but critical, issues like fresh water provision to PHCs, to curbing seasonal water and sewage borne diseases that overwhelm PHC services.

8.18 Yet rural water suffers erratic and recently declining central support. Furthermore, there is little fiscal support for sewage and sanitation. The question becomes: Given the potential for inter-sectoral linkages and externalities, is so little support appropriate? As an element of program development, the government and the Bank should look at approaches to the sanitation problem.

AIDS

8.19 In recent support to the government's AIDS program, the Bank is responding to a major shock to the health system. In its aggravating impact upon morbidity of other diseases, and its potential drain upon the finances and resources available for the treatment of other diseases, AIDS is unique. It could rob, in the not too distant future, resources now deployed to alleviate morbidity from a wide range of diseases.

8.20 Bank support for the prevention and monitoring of AIDS will therefore remain of major importance. AIDS support should, with the proviso that monitoring can demonstrate effectiveness, be strengthened and expanded. The focus should remain (unless indicators show this to be inappropriate), on prevention within targeted vulnerable groups. Real future savings through the preventive strategy must be demonstrated.

8.21 Assessment of the Bank's contribution to AIDS prevention should always be in the light of the huge potential that AIDS treatment has to eat up resources from primary care to hospitals. Its propensity to do this has already been demonstrated in the 1992/23 health budget, raising considerations of sustainability and additionality noted in new Bank initiatives below.

8.22 Coordination of expenditures related to AIDS with other programs is appropriate where they have tight focus upon the some target groups.

C. New Initiatives in the Bank Program

Approaches to Primary Health Care and Disease Control

8.23 There are two approaches to this high priority issue: (a) the comprehensive, integrated one-project strategy; and (b) the communicable disease specific approach.

The Comprehensive Integrated Approach

8.24 One possible approach to Bank assistance would be to address vertical communicable disease programs and other primary health care services in one coordinated project, probably along the lines of a sector investment loan. This one-project, one-budget approach could: ensure additionality, avoid duplication, protect investments through maintenance programs, benefit from relationships in the delivery system, and improve blending of resources. Technical support within the MoHFW is essential, with health economists and analysts to establish relative benefits of various spending packages. This approach could be piloted in a single state. However, a form of it might also be effective for working with the center.

Priorities Under a Discrete but Programmed Approach

8.25 Another possible approach would be to treat specific diseases within a carefully programmed strategy, care being taken that resources do not shift the budget away from stated priorities. In addition, in this approach, projects could also contain sectoral or institutional development components. This approach, too, might be applied at either the center or state level.

8.26 Within the disease specific approach - a number of high priorities would emerge:

(a) Malaria would be a very high priority (as is indeed expressed in policy, though not financial, terms by government). It is important to reestablish confidence and efficiency in the malaria program at state level, following the cuts. This program might target also filaria, kala-azar, encephalitis, where the regional environments demand such integration. Since this tends to be in the poor states, there would be high externalities, and these should be deliberately sought. Malaria programs should have a major equity enhancing effect. Research and monitoring should make policy clearer. Detailed aims of the program would vary on a regional basis.

(b) Tuberculosis must also be given priority. This is not least because of its close relations and association with AIDS. TB features increasing incidence amongst the urban poor. As a major health care cost to the urban poor it is likely to increase. Reduction of TB incidence has a major poverty alleviation element. Urban slums are a high priority target. In so targeting, the supporting project must be structured to integrate with other projects aiming at this same target population, and to ensure externalities are acknowledged. Health education could be an important element in TB, overlapping designedly into AIDS programs.

(c) Leprosy will remain very important for at least another decade. Eradication is the aim. Assistance should establish a critical resource package aggregated to national level and target and timetable a full eradication program. This would focus on most critical regions as highest priority. Reducing the number of cases to below 200,000 by 2000 is feasible. If aid is contemplated, there is little economic point in mounting a less than realistic package for total eradication. Leprosy assistance should also feature rehabilitation, at low cost, of cured target groups, an important income generating element. Cheap allopathic surgery and other operations to suppress lesions have quick returns. One of the major benefits pursued under this strategy is medium term liberation of resources for other disease control programs.

(d) Blindness programs could have an exceptionally high return. However, these programs should lend themselves to a major collaboration with the private and voluntary sector. They would aim at long term improvement of ophthalmic services, as well as reducing the astronomical backlog of untreated cataracts.

8.27 More general assistance to the Primary Health Care System would be a separate project under this disease-specific pattern of assistance. Within a first phase, essentially of consolidation, the priorities would be to ensure:

(a) Quality improvements through packaging and blending, rationally and flexibly, the related actions needed to deliver health care at a village level. This should be within a minimum, flexible menu of health care that can be defined at district PHC and sub-center level.

This quality improvement program would include the fundamentals for administration, communication, resource inputs and delivery within each disease control program. This must be ensured within the wider program, at national and state level, but also within the package of resources needed at the delivery points, and on interaction with the patient, within the drug and medial provision blend. Packaging also applies to human resources -- and so is coordinated with training -- and supporting logistics, and so to simple but essential support (jeeps, in association with fuel and drivers). Efforts must be made to ensure that such packaging, once proven efficient, is fully protected from fiscal stresses that would reduce effectiveness and efficiency by altering the blend of resources.

The aim would be to provide a service that stops patient passing of PHCs and other levels of rural and primary level facility.

Priorities could be developed to determine which PHCs and SubCs to help first using remoteness and the accessibility of health facilities as criteria.

(b) Outcome monitoring and appropriate data. Refined targets are needed that are effective in enhancing productivity and quality of service provision. This needs to be achieved without producing the unreasonable subservience to simple empirical targets that has characterized family planning efforts, to their great detriment.

These targets, by focussing more on evolving health outcomes of patient system contacts, can become a subtle indicator of quality.

8.28 Villagers respond quickly to perceived quality of health care. Improved local public primary services will be utilized once quality and confidence are restored. In this, ensuring a basic minimum quality of standards will enhance equity. The impact upon reducing personal health expenditures and lost wages ought to quickly become significant

8.29 As a second phase, the priority would become:

(a) Widening of primary health care services geographically. Extending social outreach to the most deprived areas would be important. These could be established by interpretation of data to give health status rankings.

Data upon which to base this outreach are increasingly available, and highlight the inferior and more expensive curative and preventive services available to the more remote tribal and other scheduled populations

(b) Widening the menu of PHC services. As a secondary priority, once PHCs operate more effectively, extended investment, together with training, can facilitate making available a wider ranges of services.

Assistance to Hospitals: A Catalytic Role for the Bank

8.30 Hospitals are today unnecessarily and uneconomically overloaded through inefficient and unnecessary referrals, which aggravate the impact of insufficient and ill-structured budgets and a strongly circumscribed ability for cost recovery.

8.31 Yet the transformation of the hospital services into a level of health care that can provide an effective service, to the poor as well as groups with more ability to pay for private sector service, is an important element of integrated health care system.

8.32 The policy thrust through the report is enhanced health care available to all on an equitable basis. Primary health care is the first priority. Isolation of hospitals from the primary health care budget by placing it under another directorate is one means of protecting publicly-funded primary health provision from escalating hospital costs.

8.33 This isolation of the hospital budget would be characterized by achievement of regulated but genuine independence of hospitals. Their success would be an integral component of the restructuring of the overall health system aiming at enhanced primary health provision. An effective, interlocking and efficient hospital system is imperative and important to the nation in balanced provision of health care. One example might be the Safe Motherhood Initiative, the success of which clearly depends on improved hospital services.

8.34 Assistance in this area would also be a priority from the Bank's perspective.

8.35 The combination of independent hospitals with the public primary health care system should be seen as another manifestation and scale of blending. The aim, at hospitals, would again be to provide an effective and cost efficient service, and to protect the equity of access of the poor to this service.

8.36 This independence of hospitals is advocated as the best means of protecting the primary health care system budget from resource demands and spiralling fiscal impact of the demands of hospital care. Despite laudable government claims about priorities, the effective doctors' lobby has the potential of damaging or even swallowing primary health care resources. This fuels the tendency to allot present public current expenditures to hospitals to raise a return from sunk costs.

8.37 The independence of hospitals is also a means of financing hospitals effectively, while managing them more efficiently. The independence of hospitals to raise (and keep) resources through cost recovery of measured, policy prescribed dimensions) itself contributes to equity and frees money to enhance the minimum standard of primary health care. Non-functioning public hospitals, crippled by overload through inefficient referrals and rigidly structured inadequate budgets provide little service to the poor and use resources of high opportunity cost to very low return[1/]

1/ In some cases, misallocated budgeting of insufficient funds results in hospitals becoming utterly ineffective to the point of collapse. Even while functioning to provide poor quality care, transaction costs that have to be met by patients' private funds mean that access is difficult for the poor. And the scarce resources for health delivery encourage exploitation of privilege. Without transformation of management, under present budgetary constraints, the problem is likely to become worse, not better.

8.38 The provision of a public hospital service, available to the poor, is dependent upon the transformation of public hospitals' status. Hospitals must leave behind their present inappropriately, ineffectively funded and dependent status. Cost recovery has a major role to play -- within a spectrum of prices developed to ensure protection for the poor.

8.39 The Bank could promote a package of assistance for hospitals. Perhaps other donors could take this as a higher priority in view of its complementarity with primary health care and high visibility. A package to establish the hospital transformation might include:

(a) Finance and assistance to the new over-arching administration for independent hospitals. Administrative arrangements within the DOH must be made for a body of overall authority that disburses the grants for and monitors quality in independently managed hospitals. Assistance would be for institution building and operations research. Staffing and training would be important.

A management information system, monitoring evaluation and health outcomes linked to the health economic unit in the DHMW could be important.

Regulation of service provision in hospitals, including a range of suggested norms to ensure access of the poor, and for some stacked level of charges (and including free treatment) would emanate from this body. Implementation would be through the state governments.

Its regulatory role would encompass standards in the private sector too, for registered and unregistered doctors, and through links to the existing homeopathic councils, to the Indian System of Medicine.

(b) Restructuring of medical education. A health manpower project should be initiated to assist the Medical Education Council, with appropriate links to the Health Departments at center and state, but also to the Ministry of Higher Education, the University Grants Commission, and for technician level manpower, the All Indian Council for Technical Education.

The Medical Education Council would be an independent body standing in its own right, like the University Grants Commission or the All India Council for Technical Education.

The package to restructure medical education would include: (a) emphasis upon in-service and on the job training and upgrading of already trained medical staff (of all levels); (b) revisions of curriculum for MD training to ensure appropriate social content and rural and primary care emphasis; (c) increased outturn of nurses and paramedical staff of appropriate specialty.

Cost recovery would be important to give the Council some independence of policy through self generated flexible resources. Cost recovery would be associated with scholarships packages, and incentives (for example, such as those which off set scholarships against preparedness to work in rural areas, necessarily interwoven with reservations policy.

Equity of access and quality of learning and training would be the hall marks of the council.

Medical management of all levels of facility and of logistics streams would be stressed, with enhanced resource awareness.

Paramedical training, and that of specialties such as ANMs would be revamped together with new job descriptions ensuring national standards, but allowing for local flexibility.

(c) A hospital specific series of programmed packages. These would be administered through the states and available on a phased basis and according to local conditions of technical and political readiness to assist in the independent management of hospitals.

These would need assistance for: (i) institution building; (ii) particularly personnel management, motivation and positive management styles, with development of incentives that reflect real quality of care delivery. Training would be linked to incentives and used as past of he active functioning of the hospital; (iii) financial management with stress upon cost recovery evaluation and mechanisms; (iv) appropriate maintenance functions and strategies for equipment and buildings.

Coordination between DoH and DoFW

8.40 The two departments within the MoHFW must improve coordination of their activities. Both have stakes in the successful operation of the PHC system, but they are currently competitors for resources within that program. In areas such as maternal and child health and communicable disease control, greater coordination of efforts and budgets would increase the effectiveness of the programs. The Bank encourages and will support initiatives that tap the benefits these two departments can produce for each other.

D. A Partnership to Enhance Equity and Quality of Health Care

8.41 The GOI has achieved considerable progress in health provision for the 860 million people it governs. Although the practicalities of health provision have fallen short of the constitutional aims, the health status of the Indian population is much improved from that of 40 years ago.

8.42 To continue to make improvements in health provision GOI has to set out difficult priorities, target with increasing refinement, secure more efficient practices and operations, seek greater assistance from externalities that derive from investments in other sectors, and couple health provision and communicable disease programs closely to the effort to eradicate poverty. In this the Bank and the GOI perceive closely similar directions for health care provision. In precipitating action to set such trends adjustment is an opportunity not to be missed.