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ECONOMIC REFORMS AND HEALTH SECTOR: SOME LESSONS FROM INTERNATIONAL EXPERIENCE

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1: Introduction

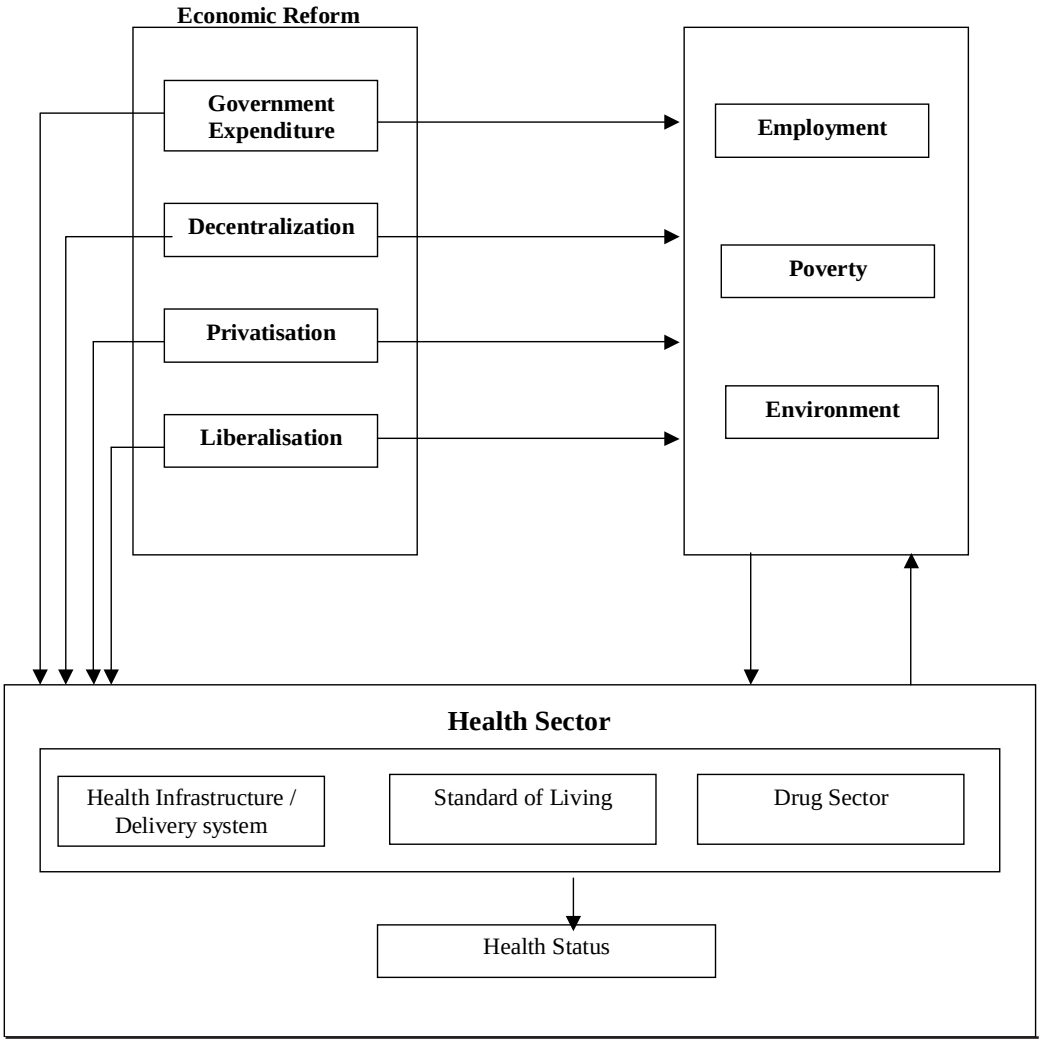
Several developing countries implemented economic reforms since 1970s to overcome economic problems generated due to external and internal factors and achieve economic growth. Exogenous economic factors like oil price shocks of early 1970s and extreme hike in world interest rate in the late 1970s adversely affected many of these economies. Meanwhile, majority of these countries were facing internal economic difficulties at both macro and micro level. Thus the external and internal economic problems resulted in low economic growth. In order to resolve these problems many developing countries adopted new economic policies based on neo-liberal principles. The advocacy and adoption of neo-liberal economic policies came contrasting against the policies followed earlier. After the Second World War most of the economies practised a development approach based on capital accumulation coupled with technical progress, through economic policies of inward-looking and promotion of import-substitution industries, and with increased government involvement in economic activities. In the 60s, the development approach changed towards promoting human resources to achieve economic growth. It was realised that promoting both inputs i.e. physical and human capital are indispensable for development. Growth oriented policies based on capital accumulation - with trade, import substitution as major instruments, and developing human resources – through social sectors like education, health, nutrition, etc. increased government's role in economic activities. Market failure in allocating resources efficiently and promoting overall development necessitated more public intervention in economic decision-making. Rapid economic growth achieved by socialist countries particularly after the Second World War also paved way for concentration of economic activities under government, as a result public intervention was seen in all spheres of economic activity.

With the experience from the changed international economic scenario, since the 70s an opinion that more public intervention alone might not promote development started growing. Several countries implemented a variety of policy changes in their economies. The new policies based on neo-liberal principles included redefining government's role, privatisation, liberalisation, changes in monetary and fiscal policies, etc., to bring stabilisation and structural adjustment in the economy. These new economic policies of stabilisation and structural adjustment have been termed as economic reforms or structural adjustment programmes. Structural adjustment programme can be defined as "a process of market oriented reforms in policies and institutions, with the goals of restoring a sustainable balance of payments, reducing inflation, and creating conditions for sustainable growth in per capita income" (Corbo and Fisher 1995). It involves drastic

policy changes to move towards marketisation and liberalisation away from public control and command policies of the governments.

Implementation of economic reforms brought several policy changes in the economic structure, which has its impact on all sectors of the economy. Here an attempt is made to study the impacts of economic reforms on health sector, an important component of social sector. Health sector, having wide links with other economic sectors (Figure 1), experienced drastic financial and administrative structural changes. Experience of four countries namely Chile, China, Sri Lanka and Russian Federation is reviewed in the study.

Figure 1: Linkages between Economic Reforms and Health Sector



The countries under study implemented new economic policies at different points of time. As early as in 1973 Chile, a Latin American country, embarked upon economic reforms with the onset of Augusto Pinochet's rule. China and Sri Lanka implemented the new policies in late seventies. Russia experienced drastic policy changes from 1989 onwards with *perestroika* and *glasnost* policies. Many of these countries adopted the market oriented economic principles in the backdrop of severe external and internal economic problems faced prior to the new phase. Several measures were undertaken to remove problems of deficit in balance of payments, declining foreign capital flow, increasing fiscal deficit and rising inflation, etc., which had obstructed the economic growth of these countries. These policy measures although implemented at various points of time have made their impact on health sector also. A study of the effects of various reform measures like privatisation, liberalisation, decentralisation and others can provide guidelines to correct the policies towards implementing economic reforms with a human face. In the section to follow, various facts of the reforms process and their effects on the health sector are analysed for the four countries mentioned above. The last section draws some lessons that follow for India.

2: Government Expenditure and Health Sector

Increasing government expenditure during 1970s is one of the important factors called for introducing economic reforms. Increased expenditure, which was met through deficit financing, had brought in high inflation and instability in many economies. For instance, Chile had a government deficit of 24.5 per cent of its GDP and hyperinflation of 900 per cent during 1975 (Sherman Website). With the advent of the reform process it was necessary to restore stability with reduced inflation. Several countries introduced measures to cut down government spending. This measure has its repercussions on all sectors of the economy including the social sector. Considering the fact that components of social sector are merit goods requiring continuous government support let us see the effect of economic reforms on government expenditure; total health expenditure, public and private health spending; and changes in the constituents of health financing in the selected countries (Box 1).

2.1: Government Expenditure

In the pre-reform period, all countries under consideration had huge government expenditure owing to their wide spread responsibilities. For instance, just before implementation of economic reforms

the government of Chile was spending more than 41 per cent of its GDP in 1972 (World Bank 2000a), similarly government expenditure was about 31 per cent of GNP during 1978 in China (Jun Ma Website). Chile and China were under communistic principles before embarking upon economic reforms, where the government concentrated planning and financing in the economy. As a result government expenditure was high. Similarly Sri Lanka had a total expenditure of nearly 39 per cent of GDP in 1978 (World Bank 2000a). But after introducing reforms the share of government expenditure reduced drastically in all these countries. While Chinese government expenditure dropped to about 12 per cent of GNP in 1995, Chile and Sri Lankan governments, respectively had an expenditure of 21.5 and 25 per cent of GDP in 1998 (World Bank 2000a). The decline in government expenditure is the result of various factors along with expenditure curtailing measures. In the process of economic reforms financial structure of these countries changed drastically. For instance, China had introduced "*fiscal responsibility system*"[1], which established a fiscal contract between centre and provinces for revenue sharing through negotiations. But, in the new system revenue of the government declined. For instance, revenue-GNP ratio, which was over 31 per cent in 1978 dropped to 10.89 per cent in 1995 (Jun Ma Website). The financial structure in Russia was also altered which reduced the consolidated budget share of federals. In Chile, the Chicago Boys[2] advised President Pinochet to reduce government expenditure to the minimum level in order to restore stability in the economy.

Box1: Reforms and Government Expenditure

Area of Change	Chile (since1974)	China (since1978)	Sri Lanka (since 1980)	Russia (since 1989)	Lessons for India
Government Total Expenditure	Declined	Declined	Declined	Declined	
Public Health Expenditure	Declined	No decline	No Decline	No Decline	Public expenditure on health needs to be maintained
Health Infrastructure (Hospital beds, health personnel)	Health infrastructure adversely affected; Health personnel increased	Health infrastructure improved; Health personnel improved	Health infrastructure not affected due to special measures; Health personnel marginally improved	Health infrastructure was adversely affected; Health personnel improved	Special efforts are required for developing health infrastructure

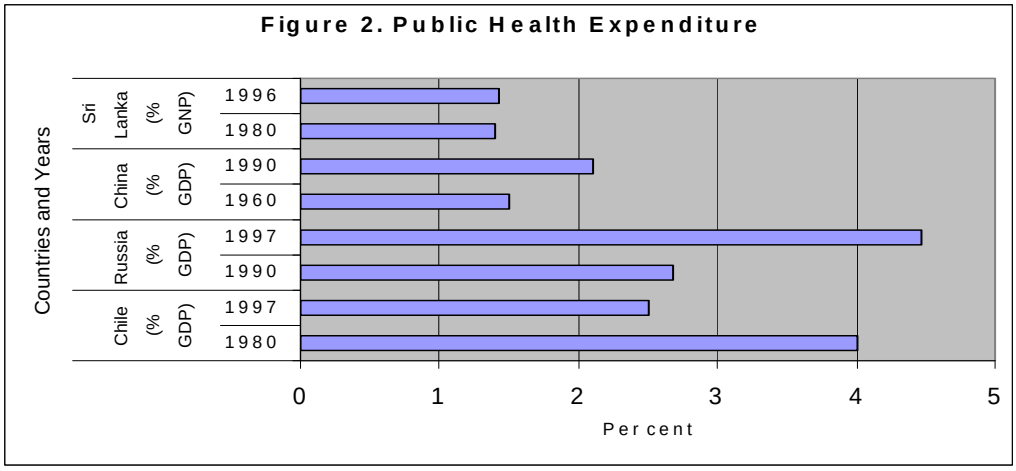
2.2: Social Expenditure

What is the impact of fiscal contraction on social sector in general and health sector in particular? In China, although the total government expenditure was reduced, social expenditure as a percentage to government's total expenditure did not decline. In fact, the Chinese government stepped up its expenditure on social sector from 11.6 per cent to 23.6 per cent (as total budget) between 1978 and 1995 (Jun Ma Website). This indicates that social expenditure as per cent to total government spending is not declined during reforms period in China. Similarly, governments of Chile and Sri Lanka seem to have increased their spending on social services[3] (World Bank 2000b) at aggregate level. Social services expenditure constituted about 57.6 per cent of total expenditure during 1980 in Chile, which increased to 63.9 per cent during 1990 and further to 71.3 per cent during 1998. Sri Lankan government also pushed more funds to social services, which was 33 per cent of government expenditure in 1998, increasing from 24.3 per cent in 1980. All these indicators show that the government expenditure on social services as a whole has not declined in these countries during reform period.

2.3: Government Health Expenditure

Let us now examine the pattern of public health expenditure for Chile, Russia and Sri Lanka. The changed pattern of government expenditure during reforms did not reduce health spending in Russia, China and Sri Lanka, but it adversely affected the health spending in Chile. During the reform period Russian government raised its expenditure on health from 2.68 per cent to 4.48 per cent of GDP between 1990 and 1997, and in China public health spending increased to 2.1 per cent of GDP in 1990 from 1.3 per cent in 1960 (UNDP 1999), while Sri Lanka maintained a public health expenditure around 1.5 per cent of GNP (Table 1). On the Contrary, public health expenditure in Chile, as a percentage to GDP, declined continuously from 4 per cent in 1980 to 2.5 per cent in 1997 with a sharp fall to 1.96 per cent during 1990. As a result the social expenditure per capita on health in Chile reduced from 86.6 in 1974 to 63.6 in 1985 (1970=100, as quoted in Dreze and Sen 1989).

Figure 2. Public Health Expenditure



2.4: Shifts in Health Financial Structure

Reform measures changed the financial structure in majority of countries. Alteration in financial structure has its impact on health spending. In Russia adjustments of financial structure in terms of allowing federals to finance health sector adversely affected health spending at federal level. The consolidated budget share of federals declined from 20 per cent in 1990 to 12 per cent in 1994 (Rand Website). It is important to note here that in the changed environment health institutions were asked to generate revenue through user fee, which brought shifts in financial sources of health sector. Similarly, during the reform period financial source of health sector has shifted towards patient fees in China (Table 2). Local government expenditure has declined from 24 per cent of total health expenditure to 12 per cent between 1980 and 1992. Similarly the rural collective fund or co-operative medical care system that had covered about 90 per cent of villages in the pre-reform China, dropped to 5 per cent of villages in 1985, due to dismantlement of agricultural collectives (Xing-Yuan and Sheng-Lan 1999). An interesting point to note from Table 2 is the increase in the percentage share of labour insurance and also of patient fees. China introduced patient fee system in 1980 along with dismantlement of agricultural communes. As a result revenue from patient fees constituted about 37 per cent of the total health expenditure, which is almost equal to the contribution by labour insurance. This shift in financial sources reveals that for those who are not covered with any insurance scheme, medical care cost has increased particularly for peasants in the reform period (Xing-Yuan and Sheng-Lan 1999).

In summary, it can be stated that implementation of economic reforms has not reduced government health spending in countries under study, except Chile. The importance assigned to health sector was not diverted in these countries and even Chile implemented specially targeted welfare programmes.

3: Privatisation and Health Sector

Another major instrument of economic reforms is privatisation, oriented towards reducing the role of government and increasing market mechanism in economic activities. Privatisation aimed at curtailing the number of public sector units and allowing for more private sector participation in production activities, covering all sectors of economy i.e. agriculture, industry and social services. Introduction of privatisation has shown far-reaching impacts on health sector in all the countries under study (Box 2).

3.1: Restructuring of Health Delivery

Privatisation of production activities in China disrupted the primary health care system, particularly in rural areas. In China, rural health sector which was developed under agricultural communes, collapsed after the dismantlement of communes. Privatisation of agricultural activities reduced

financial source to rural health sector and hence the cooperative medical care system collapsed as its coverage fell to 5 per cent of villages in 1985. Similarly, the well-served 'barefoot doctor' system grown under the cooperative medical system disappeared and paved way for new system called 'village doctor' through privatisation of rural health institutions since 1980. Under privatisation policy public health institutions were transferred to private sector, to generate revenue from health services delivered by changing user fee and drug costs. Doctors in public institutions were allowed to perform private practice to supplement their income. The Chinese government privatised village health clinics, which resulted in transferring of ownership of about 60 per cent of village clinics to village doctors or jointly to village doctors and village health aides by 1990 (quoted in Geyndt 1992).

Sri Lanka opted for a different route. In order to widen up health services, Sri Lankan government without privatising public health institutions allowed private sector to deliver health services, along with public sector, The Sri Lankan government is now proposing to introduce user fees to the non-poor people (Perera Website) to bring efficiency and proper utilization of health services.

Box 2: Effects of Privatisation on Health Sector

Area of Privatisation	Chile	China	Sri Lanka	Russia	Lessons
Privatisation of production	Health seeking behaviour was	Cooperative rural health system			Government financial support is
Privatisation of health facilities	Increase in the number of private health care institutions; Affected the poor and unemployed severely	Enlarge in the number of private medical health care institutions; Adversely affected the poor due to increased prices	Increased the health facilities	Affected the poor and unemployed	Poor and unemployed should be protected
Introduction of User fee	Medicare cost increased; Adversely affected the poor	Medicare cost increased; Adversly affected the poor		Financial strength of health sector adversely affected; Medicare cost increased affecting the poor severely	User fee needs to be regulated and downtrodden sections should protected
Private Health Insurance	Widened health services; Poor, old and unemployed people left out due to the practice of skimming policies				Measures should be taken to include all people in health insurance scheme

The Pinochet government in Chile on the other hand, restructured the health sector on the basis of market principles since 1980s. The process of restructuring covered both institutional and financial aspects of health sector i.e. decentralisation and privatisation of health administration and finances. In order to manage health responsibility of people the government allowed both public and private sector.

3.2: Introduction of User Fee

Most of the governments have seen user fee as a source of revenue to health sector during reforms period. Particularly in China health services were charged to cover the cost of delivery owing to the increased medical care expenditure. This was partly possible due to rise in the income of people during the reform period (between 1980 and 1990 the national per capita income increased at 7.3 per cent per annum (quoted in Xing-Yuan 1999)). Income derived from user fees became one of the sources of financing for worker's bonuses, housing and retirement benefits (World Bank 1993), which indicates the growing importance of user fees in Chinese health financing.

Implementation of user fee has shown both positive and negative effects of privatisation and has changed the health seeking behaviour of people in China, Chile and also in Russia. User fee and privatisation of health services increased the choices and quality of health care services, particularly in Chile and China. Consumption of western medicines increased and people demanded for quality medical care in China during reforms. In Sri Lanka the private sector has assumed an important role in providing health care (Perera Website), though it is not developed in an organized manner (Fernando 2001). While majority of the outpatient care services are sought from private sector (Fernando 2001), most of the inpatient care is received at public hospitals. Government doctors too have been permitted to perform private practicing after their duty hours. In the changed scenario, private health sector has been enabled to undertake investments and also import necessary equipments. For instance, the Sri Lankan government has foreign investment and participation government has encouraged in health sector (Perera Website).

However, application of user fee for medical services has depicted more adverse effects than benefits in the countries under study. In Russia privatisation policies placed health care system on market forces, but health care system which was dependent on State support for long could not manage in the market-based environment. This introduced financial problems to health sector. Introduction of privatisation and user fees and terming them as a source of revenue made the Russian federals to reduce health expenditure, which further deteriorated financial strength of health institutions. Privatisation and user fee have kept poor people away from health facilities as medical

care costs have increased rapidly. Over the years the percentage of people required to pay for health services is rising. For instance, in China about 14 per cent of urban population and 93 per cent of rural population required paying for services (Xing-Yuan and Sheng-Lan 1999). In Russia publicly owned medical institutions are adopting commercial practices to resolve their financial problems which is affecting health services received by poor sections of the society.

3.3: Urban Bias and Insurance under Privatisation

An important outcome or message from privatisation is its urban bias. The process of privatisation has allowed for concentration of health facilities in urban areas thus depriving rural people of health services. For instance, in Sri Lanka privatisation has not helped establishment of private health facilities at rural area on a larger scale, as most of the facilities are situated in urban areas. At present, in private sector there are 85 hospitals with 2300 beds, 662 retail pharmacies and a few diagnostic laboratories and about 1000 general practitioners, most of which are located in urban areas (Parera Website).

The experience of Chile provides some important lessons with regard to implementing private health insurance companies. Chile introduced private health insurance by asking people to contribute 7 per cent of their monthly salary to meet health needs. Private insurance companies (ISAPREs[4]) in Chilean health sector, although increased health services, concentrated on people of high income and young age (e.g. more than 70 per cent of affiliates of ISAPREs are less than 40 years of age). The ISAPREs neglected poorer sections of the society by following skimming policy, leaving the sick and elderly to be cared by public health insurance i.e. FONASA[5] (World Bank 1993). The ISAPREs curtail medical services to certain diseases, which restricts its affiliation with more number of people. Further, the services of ISAPREs are limited because of the condition that insurance purchasers need to pay regular premiums to avail full benefits. But, unemployment and decreased income of workers restricted them to avail more benefits. Hence, privatised health insurance system has helped the rich and regular income-earning people, while for working class it is not much beneficial as revealed by Chilean experience.

What are the major lessons from privatisation? In the new market environment, medical organisations that were supported by the government, faced financial strain and resorted to user fee and health insurance system. Introduction of user fee, practices of exclusion, skimming policies and conditions of regular payment for health insurance, etc., adversely affected the poor and kept them away from using health services. Secondly, in order to reduce the expenditure, health institutions provided

simpler and cheaper treatment at the cost of quality. Thirdly, several developmental activities such as construction of new buildings and other basic investments were affected. Service charging simultaneously with reduction of budgetary support for medical organisations resulted in low technological development and cut in expensive services. This has raised the medicare cost combined with poor quality service as observed in Russia, against a wise social policy. Fourthly, rural poor have not been able to meet the increased medicare cost, and that too on serious diseases like tuberculosis as happened in China (World Bank 1993). Finally, the private sector is not spread to rural areas, which is not a healthy trend in catering health services to all. Eradication of these problems and maintaining health services to poor and protecting them from severed economic conditions during the reform process requires public action.

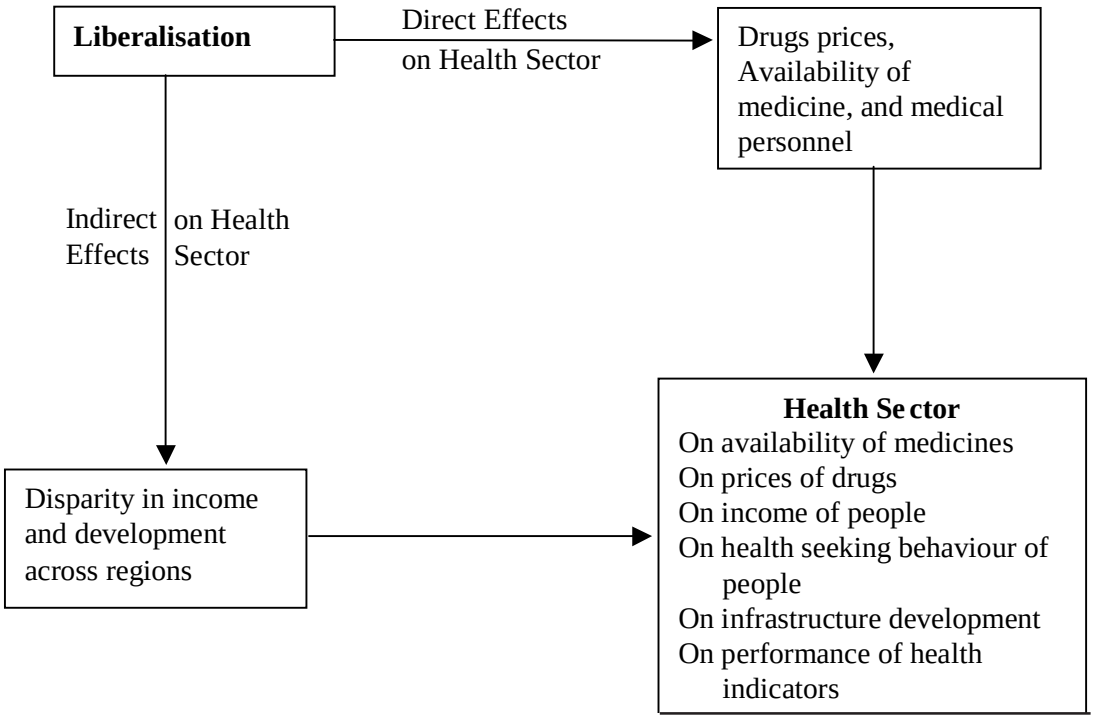
4: Liberalisation and Health Sector

Liberalisation is a measure of economic reforms opening up economy for foreign trade and foreign investment. Freeing international trade and investment restrictions, adopting flexible exchange rate system, etc., allow easy flow of capital, goods and services and thus liberalisation can be used as an engine for economic growth. While promoting economic growth in countries under study, liberalisation has affected health sector directly and indirectly (Figure 3); and also both positively and negatively (Box 3). The direct effects of liberalisation are on drugs price, availability of foreign medicine in domestic market, and indirect effects include increased disparity in income and development across regions, influencing health sector.

In the liberalised market atmosphere in Russia, prices of pharmaceuticals and the cost of treatment increased. This compelled poor people to forgo or postpone medicine consumption, and health institutions adopting cheap medicines for treatment. But in China, opening up of market allowed for more influx of foreign medicines and consumption of western medicines also increased. Hence, the quantum of health services based on western medicine increased in China. Besides, mobility of health personnel increased resulting in migration of more health personnel from China (Zhou 2000).

The liberalisation policies have aggravated regional disparity and income distribution, which have direct effects on health. For instance, in China and Russia policies like creation of special economic zone, foreign trade corporations and encouraging investment in selected regions have increased economic growth of those particular regions, while other regions are deprived of these benefits. In Russia liberalisation policies seems to have helped regions that are endowed with more resources than resource scarce regions (Gimpelson Website).

Figure 3 – Liberalisation and Health Sector



Box 3: Effects of Liberalisation on Health Sector

Liberalisation policies	China	Russia	Lessons for Indian policy making
Trade liberalisation	Supply of foreign medicine increased; Consumption of western medicine increased; Prices of drugs increased	Medicine availability decreased; Prices of drugs increased.	Adequate supply of medicines should be ensured; Prices of drugs to be regulated
Liberalisation of investment policies leading to foreign investment	Regional disparity increased; Adversely affected health sector in poor regions in terms of infrastructure and affordability.'	Regional disparity increased; Reduced income adversely affected the health seeking behaviour of people	Policy measures to reduce regional disparity to be pursued; Health requirements of people in poor regions must be taken care of.

The impact of disparity in regional development on health sector can clearly be seen in China. The first effect was in the form of budget allocation between the center and province. In the new revenue sharing system, allocation is decided on several criteria like growth of the region, special responsibilities attached to the province by the center and personal contact of the provincial leaders with the central government. These criteria restricted the negotiating power of poorer regions for budget allocation. Thus the new revenue sharing principles affected the financial source of poor regions, which in turn influenced government spending particularly on the social sector. The effect of disparity in regional income distribution and health spending can be seen in the relative position of the health infrastructure across regions in China. As can be seen in Table 3, the rich provinces report over supply of medical staff, while poor provinces are facing shortage of medical personnel.

The second impact is that increased income inequality among people and also across regions affected the health seeking behaviour of people due to variation in medicare costs. For instance, the health care cost varied widely across regions as shown in Table 4. As can be seen from the table, in poor provinces people spend more on medical items as percentage of non-food expenditures, while the rich spend relatively less. This indicates that along with disproportionate income distribution the health care cost is also more to poor people.

The disparity in spending on health differentiated the progress of health status across regions in China. As shown in Table 5 for the period between 1983-93 the disparity in health outcomes- in terms of infant mortality and maternal mortality rates- has widened across regions. The mortality rate had declined at a faster rate in the wealthier provinces than in the poorer provinces, which indicates the positive effect of income on status of health.

5: Economic Reforms, Employment and Health Sector

Among the several factors employment and income have direct effects on health status of people (Box 4). Unemployment and low income may force people to postpone or not meeting certain health needs. Hence it is necessary to examine the effects of economic reforms on employment, and in turn on health. The process of economic reforms increased unemployment in Chile, China and Russia. For smooth conduct of free market policies many governments are adopting measures to reduce labour size, suspending rights of labourers like right to strike, collective bargaining and right to organise. Privatisation and simplifying labour laws have increased the vulnerability of labour class to unemployment. All these policies have adversely affected the labour class. Since employment determines income and in turn health, increased unemployment and decreased income alter the health seeking behaviour of people. For instance, in Chile

economic policies like privatisation of public enterprises and government services resulted in increased unemployment, from 9.2 per cent in 1974 to 22.2 per cent in 1983 (Souther Website). It looks like in Chile unemployment is a deliberately maintained phenomenon, thinking that market forces would correct unemployment with increased competition for jobs and reduced wages. But with wages falling profits of businessmen increased, thus raising inequality in society. out of 75 million economically active people were unemployed or underemployed (Bonnell Website). Reduction in employment level has brought down the income of people. Majority of Chilean workers earned less during Pinochet's reform period than what they earned before (huppi.com). In the process, living condition of workers got worsened. This indicates that the privatisation policies did not help in curbing unemployment problem rather aggravated.

Box 4: Employment and Health Sector During Reform Period

Area of Change	Chile	China	Russia	Lessons
Unemployment	Increased	Rural unemployment increased	Increased	Employment increasing measures required
Effects on Health Sector	Adversely affected health seeking behaviour of people;	Rural-urban migration increased	Adversely affected health-seeking behaviour of people;	Health requirement of unemployed need and to be met
	Private health insurance did not support unemployed and low income people;	Migration related health problems increased	Increased health care cost adversely affected poor and low income people	Necessary to cover people of all categories of income under health insurance;
	Consumption level decreased and hence health status of people deteriorated		Consumption pattern changed towards low and cheap commodities	Income generating activities need to be promoted

China too experienced unemployment increase during reforms period. Particularly rural labour force faced severe unemployment problem after privatisation of agricultural communes that had recruited rural labour force in several activities (Patnaik and Sriram 2000). In Russia also unemployment is increasing, particularly with the youths. In early 1995 a total of 10 million

Increased unemployment and decreased income adversely affected the health related aspects of people. For instance, China experienced rural-urban migration, associated with migration related health problems (Patnaik and Sriram 2001), while constrained income affected the health seeking behaviour of people in Chile and Russia. Further, under private insurance

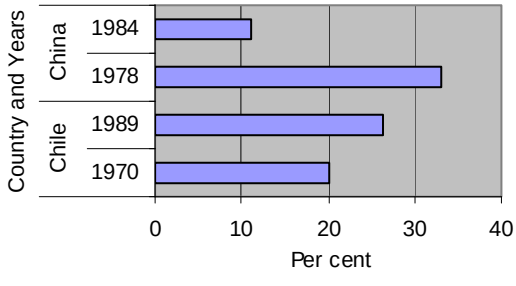
system, the insurance holder required paying regularly to the insurance company in order to derive full benefits, but unemployment and lower wages restricted the ability to pay of workers and proved disaster for them, as they could not pay regularly in Chile. Due to decrease in income diet practices of people changed towards low and cheap commodities in Russia, which affected the health status of people.

6: Economic Reforms, Poverty and Health Sector

The new economic policies seem to have increased poverty and income inequality in countries under study. During Pinochet period Chile experienced an increase in the extent of poverty (Figure 4). Between 1970 and 1989 the proportion of people below poverty line increased from 20 per cent to 26.3 per cent (Sherman Website). In Russia poverty is increasing ever since reforms are introduced, where 26.8 per cent of Russian population lived below poverty line in early 1994 (Klugman 1995). Another feature in Russia is feminisation of poverty since 1991. In the initial period of reforms, China experienced decline in the extent of poverty, but not in later stage. The percentage of poor dropped from 33 per cent in 1978 to 11 per cent in 1984, but then onwards it is hovering around 11 per cent (Jun Ma Website).

In Chile, the per capita income of people showed a very marginal increase even after 17 years of reform process, i.e. it increased from $229 per capita GNP in 1973 to $279 per capita GNP in 1989. Hence, the quality and quantity of diet went down particularly among the middle class people who consumed less than what they were consuming in 1960s or early 1970s. In addition, the disparity in income distribution increased. For instance, the richest 10 per cent of Chilean population increased their share of national income from 37 to 47 per cent between 1978 and 1988, where as the share of poorest population fell to 4 per cent from 5 per cent during the same period (Sherman Website). The disparity in income distribution affected the living standards of working class. Level of consumption, an indicator of standard of living fell for the poorest section of the society

Figure 4. Poverty In Selected Countries



by 3.2 per cent in 1989 from 7.6 per cent in 1970, while that for the richest increased to 54.6 per cent in 1989 from 44.5 per cent in 1970 (huppi.com). Poor people experienced a fall in the daily diet from 2019 calories in 1970 to 1629 calories in 1990 (quoted in huppi.com). Further the percentage of people living without adequate housing increased from 27 per cent to 40 per cent between 1972 and 1988. The increased unemployment, unequal distribution of income and wealth etc., aggravated poverty, which is the product of neo-liberal policies pursued in Chile.

7: Experience of Co-operatives in Health Service Delivery

Globalisation with its wings of privatisation and liberalisation has increased the quality and quantity of medical care, but they also caused for increase in drug prices, medicare cost along with widening up the rural-urban inequality in terms of health care facilities. Increased medicare cost compounded with reduced income and poverty during reforms have forced the poor and rural people to either curtail or stop consulting health facilities for medical treatment. Further, the health insurance, which is developed as a financial security to meet health expenditure, failed to serve the health requirements of the poor and people with irregular income.

How did different countries deal with this emerging situation? In this context, the experience of China in implementing the co-operative medical care schemes gives some important lessons. In China the co-operative medical care scheme was developed in association with the agricultural communes since 1950s. The co-operative medical care system provided basic health facilities to a large section of population particularly in rural China. For instance, towards mid 1970s over 90 per cent of villages were provided health services with co-operative medicare system. This co-operative medical care system in China was able to contain medicare cost with ensured optimal utilisation, equitable access and people's participation in health initiatives (Nayar 2000).

The co-operative system provided basic health care services for majority of rural people at a reasonable cost (Xing–Yuan and Sheng-Lan 1999). For instance, the annual outpatient visit per peasant was 3.7 in co-operative system, which is relatively higher than in other systems (Table 6). The annual medical cost per peasant was less than half of that in labour insurance and public services. Further, the table reveals that unmet inpatient care is much less in cooperative system compared to the people depending upon self-payment. However, this well served co-operative medical care system started disappearing with the collapse of agricultural communes after privatisation of agricultural activities during the reform period.

Recognising the significant contributions of the co-operative medical

care scheme in providing basic health needs of rural areas, the Chinese government is encouraging to rebuild the rural health service delivery system on the basis of co-operative medical scheme or rural health insurance scheme (Xing–Yuan and Sheng–Lan 1999) by adjusting to the requirements of problems emerged after introduction of economic reforms (Hao et al 1998). The Chinese central government has extended full support to develop the cooperative medical care system in most of the rural areas. This move of the government is strengthened by the experience of the co-operatives survived even during the reforms period in certain parts of China. These co-operatives have illustrated that health care services could be provided to a larger section of population at *reasonable lower costs*. This fact was further proved by the co-operatives developed on experimental basis during 1994-96 in certain regions of China (Hao et al 1998). For instance, a co-operative medical care scheme implemented in Guangxi province demonstrated that the fees paid by the members for outpatient services in 1997 was lower than that paid in 1994. At village health station the outpatient fee was 17.2 Yuan during 1994 and it declined to 9.4 Yuan in 1997 to the members of the co-operative medical society. Meanwhile, for non-members it increased from 17.8 Yuan to 20.2 Yuan (Table 7). Further, utilisation of health facility was found to be more among members compared to non-members when they fall sick. For instance, while among the members 13.7 people per 100 people visited the service, it was 8.6 persons for 100 among non-members (Hao et al 1998). *This indicates that having membership with co-operative medical care scheme increases the accessibility to and utilisation of health delivery units.*

Rebuilding of co-operative medical care scheme along with health insurance to provide rural health services in China has again demonstrated that the system can deliver basic health services with low cost and efficiency. Although, the rural people have benefited from the scheme, the participation of poor people is relatively low as observed at the experiment of co-operative at Guangxi. In this co-operative only 3 out of 32 low income households became members, even at a low premium (Hao et al 1998). Further, enjoining co-operative medical care with health insurance can keep away poor and low-income people from approaching health services (Nayar 2000). *These drawbacks call for government protection to poor people even in co-operative medical care system.* Since, the co-operative health system is more advantageous in terms of containing costs, increased access and utilisations, it enlarges the efficient health services in rural areas. Considering these positive benefits of co-operatives the Chinese government is promoting the co-operative medical care system by providing additional support. The Chinese experience of co-operative medical care system can be used as a model to

develop basic health services especially in rural areas in order to provide increased and efficient utilisation at reduced costs, by averting some of the problems generated in health sector with economic reforms. But, in this system also the government support is required to involve poor peoples' participation, to secure enlarged and efficient health services.

8: Economic Reforms, Decentralisation and Health Sector

8.1: Decentralisation and Efficiency of Health Sector

In several countries under study economic reforms seem to have coincided with structural changes in institutions, for easy implementation. For instance, Chile and Russia adopted decentralisation system as a measure to reduce government's role and increase participation of local institutions in administration. The decentralisation system was also introduced in health care systems of Chile and Russia. The process of decentralisation has its own impacts on health sector as presented below and in Box 5. Chilean government decentralised the municipalities by transferring the responsibilities of basic health and education services to municipalities. Transferring health responsibility to municipalities helped to achieve improvement as viewed by few health indicators like increase in number of clinics (from 142 in 1977 to 369 in 1988) and health post (a health unit under municipality, from 719 to 1034 between 1977 and 1988) in Chile. Under the supervision of municipalities medical

Box 5: Effects of Decentralisation on Health Sector

Chile	Russia	Lessons
Health sector responsibility transferred to municipalities	Polyclinics assumed more health responsibility	Local level institutions can be used for delivering health services
Due to lack of finance municipalities could not contribute significantly	Efficiency in terms of attending to patients at polyclinics increased	Financial position of local institutions need to be strengthened
Development of health infrastructure adversely affected	Hospital service was affected due to changed financial structure of health sector	Improvement of health infrastructure and service delivery required
People suffered due to improper treatment by health personnel	Health institutions adopted cheap and simpler health services due to financial problem	Supervision and management of local institutions is necessary
Patients were referred to higher hospitals for treatment without treating at municipality level	Number of referrals to higher institutions reduced	

consultation for children under 15 increased rapidly. During the reconstruction period Russia also adopted a decentralisation measure to restructure and improve health care system by shifting health financing and administration to federal government. Decentralisation of health finance to regional and local institutions was viewed as a measure to reduce pressure on national budget (Klugman et al Website). In order to increase efficiency, structure of health sector was altered establishing Territorial Medical Organisations (TMOs), and increasing the role of polyclinics. While TMOs play an important role in resource allocation, polyclinics are responsible to provide preventive, primary and secondary health care services. With this transfer of health responsibility to local institutions central governments aimed at controlling cost and increasing consumer choice of health needs.

8.2: Decentralisation and Financing Health Care

Decentralisation affected the financial strength of health sector. The health sector in Chile was not well funded by central government; hence with decentralisation responsibility of supplying more funds to health sector fell on municipalities. Funds starved municipalities could not meet the increasing health expenditures. This adversely affected the health infrastructure, where under municipality administration in Chile, the number of doctors per 1000 population did not increase (0.43 and 0.42 per 1000 people in 1977 and 1988) and the health care system experienced decline in number of beds per thousand people from 3.4 to 2.6 in the above said period. In Russia the federal government curtailed funds to health sector quoting user fee as a source of revenue, which affected the financial strength of health sector. In order to reduce expenditure health institutions provided simpler and cheaper treatment. Several developmental activities such as construction of new buildings and other basic investments were stopped.

In the decentralised health system in Chile people are not happy with health services provided by municipalities, as they faced problems such as long waiting at clinics, improper treatment by doctors and non-medical staff, etc. In addition, municipalities reduced adult health care by concentrating more on children services. According to a study by the World Bank (1993) the municipal health services were not responsive to local needs as the members were appointed by central government and they did not give much importance to local demands. Moreover the municipalities over referred patients to hospitals funded by central government in order to reduce their own cost. In certain cases the municipalities prescribed high cost curative services to get more revenue as they can get reimbursed the amount spent. Transfer of health responsibilities to municipalities improved the health service system in terms of creating more clinics and catering to child health care.

But shortage of financial resources limited the health services of municipalities.

In Russia also the decentralisation system has certain disadvantages, which can impede health service delivery system at polyclinics and hospitals levels. For instance, in the new financial structure the polyclinics require to reimburse the cost of patients referred to hospitals. In order to reduce the cost, polyclinics may not refer more cases to hospitals, which may sometimes have the needy patients. Further, the mechanism of hospitals getting reimbursed the expenditure from lower polyclinics has caused resentment among the medical personnel at hospital which might adversely affect services to the clients referred by polyclinics.

The above experience shows that in the decentralisation process organisational defects need to be removed along with devolution of powers and financial resources thus strengthening the local level institutions to meet the increasing demands. While formulating health programmes priority should be given to local health needs for delivering efficient health services.

9: Economic Reforms, Environment and Health

During the reform period practice of laissez-faire policy contributed to heavy environmental pollution which in turn affected the health status, as it happened in Chile. Absence of anti pollution laws, unregulated establishment and functioning of enterprises in the new market-based scenario polluted resources like water, land and air. As a result the number of people suffering with pollution related diseases increased drastically. Particularly, the capital city of Chile, Santiago is the worst hit area due to environmental pollution. In 1992 Santiago registered the fifth worst air pollution of any city in the world, with levels three to four times higher than the upper limits suggested by the WHO (quoted in huppi.com). Reduction in spending on sanitation projects, cuts in sanitary inspection and regulation increased unhygienic condition in public places led to the spread of the epidemics such as typhoid and hepatitis A. In addition unregulated discharge of effluents to the rivers by industrial establishments infected the irrigated crops with contaminated water. Consumption of this food increased the susceptibility of people for diseases (huppi.com). This experience suggests that approach to economic development should consider environmental factors also.

10: Economic Reforms and Performance of Health Sector

Health sector being an integral part of economic system influences economic activities both directly and indirectly. During economic reforms health system has changed to a larger extent in Chile, China, Sri Lanka and Russia. New economic policies of stabilization and structural adjustments introduced several alterations in financial and administrative structure of health system. Measures of bringing fiscal austerity did not

impinge upon health spending of the governments studied, except Chile. Particularly Chinese and Russian governments increased their expenditure on health sector, even during reforms period, but Chile curtailed health expenditure. The policy shifts while improving the health system in few countries like China, and Sri Lanka in terms of quantity and quality of health services delivered, have adversely affected health delivery system in other countries like Chile. It is pertinent to note that under new policies of privatisation, liberalization, and decentralization the poor sections of the society suffered the most. In the liberalization era availability of different kinds of medicines increased with huge inflow of foreign medicine to domestic market, but at increased prices. In many countries, therefore, poor people either postponed seeking health needs or dropped half way through owing to high cost of medicine and treatment. New economic policies helped to restore economic stability and achieve economic growth, but in the process, these countries faced with increased poverty and unemployment problems, which directly affected the health status of people. In the presence of user fee, medical insurance, poverty and unemployment the health-seeking behaviour of people changed in many countries. The impacts have influenced the development of health sector, in terms of performance of health infrastructure and health indicators. In this context a study of few relevant indicators in selected countries is attempted here.

10.1: Development of Health Infrastructure

Health infrastructure is very crucial in delivering health services. Development of health infrastructure depends upon various factors like finance, administrative policies, etc. The reform measures have altered both financial and administrative set up of health sector as observed earlier. Here an attempt is made to see the impact of reform measures on health infrastructure by selecting two indicators namely (i) number of beds per thousand people and (ii) number of physicians per thousand people.

The fact that government financial support has positive effect on the development of health infrastructure has been revealed from the experience of countries studied. Information presented in Table 8 on number of beds per thousand people illustrates that Chile, which curtailed budget assistance to health sector experienced decline in the number of beds per thousand people in the reform period. Chile had a strength of 3.77 beds per thousand people in 1970 which was reduced to 2.7 in 1996. In China, on the other hand beds per thousand people increased from 2 in 1980 to nearly 3 in 1998 owing to increased health expenditure; while Sri Lanka did not experience any changes in the number of beds as it maintained the expenditure throughout the reform period. All these facts clearly show that government financial support is essential to develop health infrastructure. But Russia depicts a different

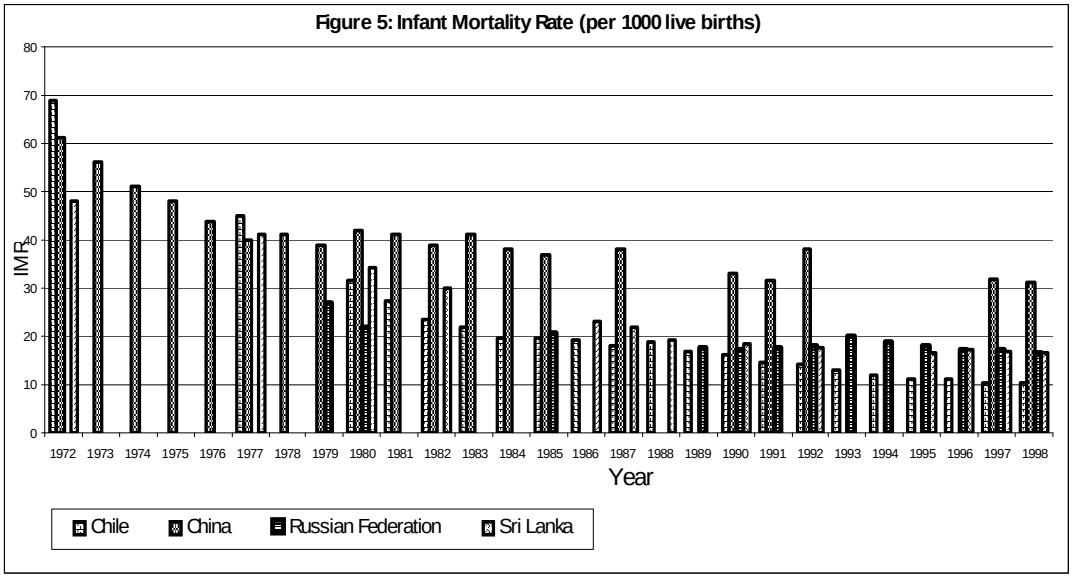
picture of decrease in number of beds against increased government health expenditure. This is because of huge infrastructure created already in the pre-reform period. Although Russia experienced reduction, still its capacity in terms of beds per thousand people is comparatively higher than in other countries as shown in Table 6.

Meanwhile health personnel i.e. number of physicians per thousand people registered an increment during reforms period. As can be seen from Table 9, in China, the number of physicians increased significantly from 0.9 per thousand people in 1980 to 2 per thousand people in 1998. This might be due to the effects on health sector by privatization and liberalization policies, which increased the health demands with rising income of people. While in Chile and Sri Lanka the health personnel show a marginal increase, in Russia in the initial period of reforms the number of physician per thousand people declined, but in the later stage it is showing an increase. During 1997 Russia had a high capacity of health personnel of 4.62 physician per thousand people, which is relatively higher than in other countries. The overall experience shows that during reforms period health personnel increased in these countries.

10.2: Performance of Health Indicators

Let us now examine how these effects have influenced the health status of people. For this purpose three indicators viz., infant mortality rate (IMR), life expectancy at birth (total) and crude death rate (CDR) are considered.

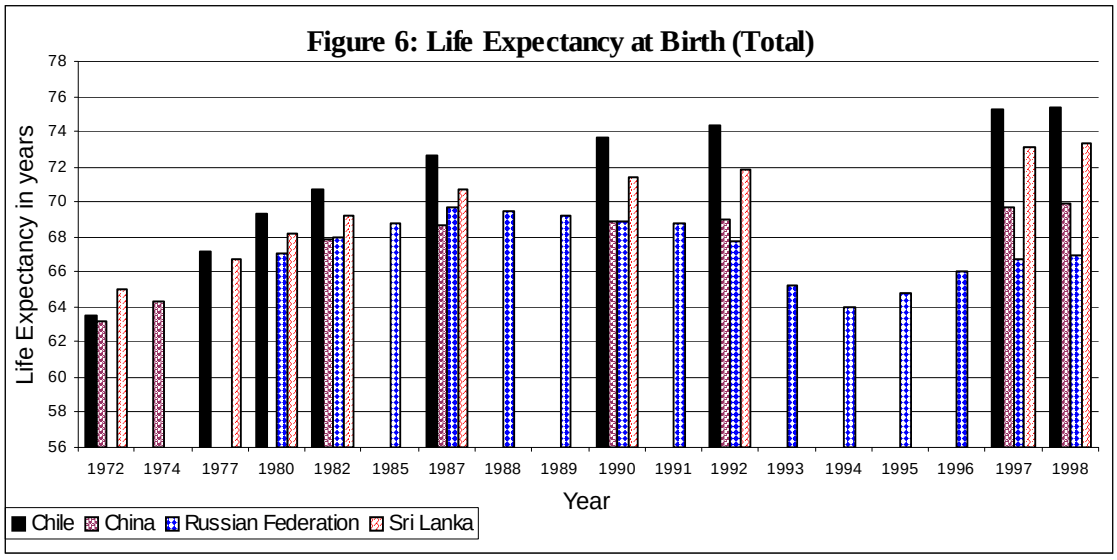
In the reform period infant mortality rate (IMR) has declined in all countries as



shown in Figure 5 (details in Table 10). For instance, in Chile the infant mortality dropped from 69 per thousand live births in 1972 to 10.2 per thousand live births in 1998. Although, Chile saw drastic policy changes, which affected the health sector and health-seeking behaviour of people due to increased prices, poverty and reduced income, the infant mortality rate declined drastically. This is because of specially targeted programmes launched by the government to reduce infant mortality rate (Dreze and Sen 1989). Similarly Sri Lanka has experienced fall in infant mortality rate from 41 to 16.4 between 1977 and 1998 again owing to government health programmes.

Though experiencing decline in infant mortality China and Russia show a different picture than other countries. While the infant mortality rate declined, from 42 per thousand live births in 1980 to 31 in 1998, in 1990 the IMR experienced stagnation around 32 per thousand live births in China. In Russia the infant mortality rate shows a mixed trend, i.e., in the initial period of reforms IMR increased (to nearly 20 per thousand live births in 1993) and towards end of 1990s showed a decreasing trend. But the over all performance of IMR seems to have not changed during the reform period. A cross country comparison indicates that Sri Lanka and Chile have performed well in bringing down the infant mortality rate due to the health programmes implemented by these governments. This experience suggests that public health programmes are necessary in reducing the infant mortality rate.

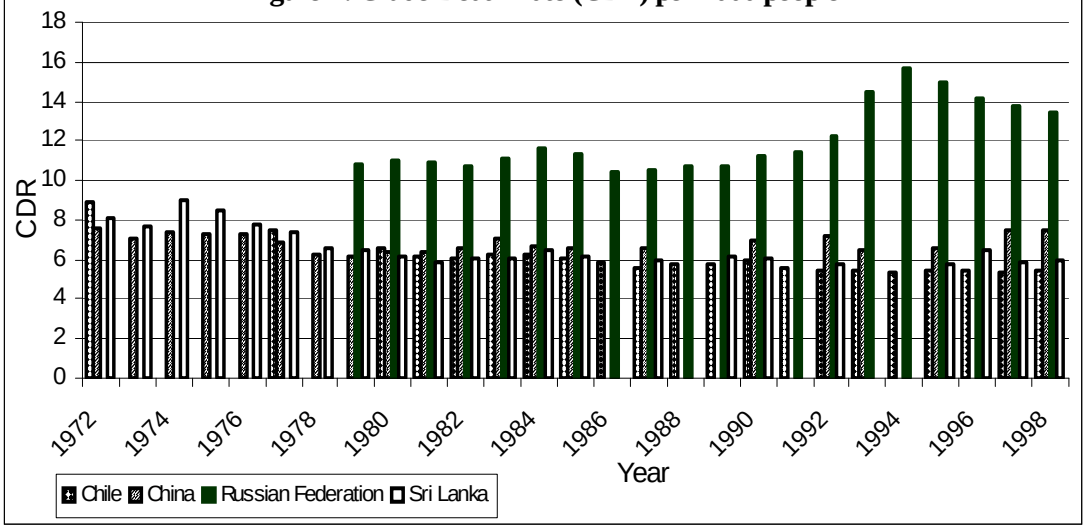
Information presented on life expectancy at birth in Figure 6 (details in Table 11) reveals that during the reform



period Chile and Sri Lanka observed an increase in life expectancy. During 1977 both Chile and Sri Lanka had a life expectancy at birth of around 67 years. The concerted efforts by governments increased the life expectancy at birth to 75.36 years in Chile and to 73.28 years in Sri Lanka during 1998. While China experienced a marginal increase in life expectancy at birth, the same in Russia declined from 69 years in 1989 to 66.9 years in 1998. The effects of reform like reduced income and consumption; increased prices of medicine; along with reduced government programmes severely affected the health status of people in Russia, which has perhaps pushed down the life expectancy.

Mortality in terms of crude death rate per thousand people in the selected countries is shown in Figure 7 (for details Table 12). Decline in crude death rate is not affected during reforms. Chile and Sri Lanka recorded a crude death rate per thousand people at 5.46 and 6, respectively in the year 1998, which declined from around 7.5 in 1977 in both the countries. But after introduction of reforms, crude death rate in Russia deteriorated with its increase from 10.7 per thousand people in 1988 to 13.5 in 1995 with a peak of 15.7 people during 1994. This increase in death rate might be due to the changed scenario in standard of living, medicines availability, affordability, etc., which have direct effects on heath status of people. The crude death rate per thousand people shows a mixed picture in China during the reform period. China had already achieved a crude death rate of 6.25 per thousand people in 1978 and this rate did not change much till 1987, but after 1987 it is on an increasing trend. During 1998, China had a crude death rate of 7.52 people per thousand, which is much higher than that at the beginning of reforms in China.

Figure 7: Crude Death Rate (CDR) per 1000 people



11: Lessons for India

Economic reforms have been implemented by many economies to overcome the difficulties and to achieve economic growth with stability. In the changed circumstances of world economic environment, implementation of stability and structural adjustment measures was inevitable. These policy measures have brought far-reaching impacts on those economies. The role of government is reduced, private sector is given more importance, and economy is opened for foreign competition in production activities, all of which ushered economic growth in few countries. In many of such countries policy measures also covered the health sector both directly and indirectly. The analysis presented in this study has some important lessons to be noted while practicing new economic policies. Some important lessons are listed below.

1. In their attempt to minimize the role of government several countries did not necessarily reduce expenditure on health sector drastically. Hence, health infrastructure, and performance of health status sustained or improved. Chile though deferred from the above paradigm, adhered to implement specially targeted welfare programmes. These findings indicate the feasibility of governments continuing its financial support to health sector.
2. It is generally observed that the role of the government is indispensable to protect poor sections of the society from the effects of economic reforms.
3. While privatisation enlarges health services and improves quality of services, it keeps away the poor from health system. Hence, it is necessary to ensure sustained health services to poor people, by introducing carefully designed programmes.
4. In this context better-administrated health care co-operatives or insurance schemes can be some alternates. The experiments from Karnataka and also the recent decision of the Karnataka Government to invite NGOs in a big way to join the government in the management of primary health centres in rural areas are in line with the National Health Policy - 2002, and the experience at the global level.
5. Participation of private sector in delivering health needs should also increase rural health institutions, instead of concentrating in urban areas alone.
6. Privatisation, while increasing the per capita income in few countries, changed the health seeking behaviour of people, which increased the cost. This process affected poor and unemployed people severely in terms of seeking their health needs. So, it is necessary

to safeguard the health requirements of poor and unemployed.

7. Introduction of user fee increases the cost of medical care and medicines, which constrains the poor people from seeking health needs. This requires regulation of user fee and providing health services at lower costs to poor people. In this case, differential user fee may be an alternative.
8. Health insurance helps in widening health services and providing financial security. But, practices of skimming and concentrating on few segments of the society, deprives health care needs of large number of people. Therefore, it is essential to design health insurance to cover all section of people.
9. Liberalization process improved the economic growth but with increased disparity in regional development. Since inequality in development across regions affects health sector, economic reform measures should also aim at reducing regional disparity.
10. While liberalization increases drug availability, it can also cause rise in prices, as happened in few countries and hence drug prices need to be regulated.
11. Decentralization of health sector increased the health service delivery system. But local institutions need to be strengthened financially. Besides, planning of health programmes should be developed considering local needs of people for efficient services.
12. Since environment has direct effects on health status of people, implementation of environment regulatory measures is necessary while allowing private and market-based forces in the economy.
13. Considering the advantages on the economy in general and health sector in particular; by minimizing the disadvantages and protecting the poor with a human face, and proper involvement of government, new economic policies can be used for economic growth and for social welfare.

Table 1: Health Expenditure in Selected Countries

	Russia (% of GDP)		Chile (% of GDP)	Sri Lanka (% of GNP)
Year	Public Health Expenditure	Total Health Expenditure	Public Health Expenditure	Public Health Expenditure
1960	..	..	..	2.2
1965	..	..	..	2.1
1970	..	..	..	2.1
1972	..	..	..	..
1974	..	..	..	1.3
1976	..	..	..	1.6
1978	..	..	..	1.5
1980	..	..	4	1.4
1981	..	..	..	1.2
1982	..	..	..	1.3
1983	..	..	3.3	..
1984	..	..	..	..
1985	..	..	..	..
1986	..	..	..	..
1987	..	..	2.6	2.1
1988	..	..	..	2.3
1989	..	..	..	1.6
1990	2.68	3	1.96	1.54
1991	2.41	2.6	2.15	1.41
1992	2.48	2.61	2.3	1.59
1993	3.32	3.52	2.46	1.64
1994	5.16	5.82	2.55	1.55
1995	4.47	5.71	2.36	1.36
1996	4.21	..	2.53	1.42
1997	4.48	..	2.5	..

Source: World Bank, World Development Report (Various Issues)

Table 2: China: Total Health Expenditure (million Yuan)

Current Prices				1987 Prices			Percentage	
			National			National		
Year	Public	Private	Total	Public	Private	Total	Public	Private
1983	10686	7153	17839	8271	5536	13807	59.9	40.1
1984	12248	8591	20839	9970	6993	16963	58.8	41.2
1985	14309	8867	23176	12921	8007	20928	61.7	38.3
1986	18116	9612	27728	17138	9093	26231	65.3	34.7
1987	20844	12789	33633	20844	12789	33633	62	38
1988	26556	16716	43272	23711	14925	38636	61.4	38.6
1989	30886	20422	51308	25111	16603	41714	60.2	39.8
1990	35814	23798	59612	27132	18029	45161	60.1	39.9
1991	41047	30435	71482	29173	21631	50804	57.4	42.6
1992	48690	35850	84540	33077	24355	57432	57.6	42.4
1993	52076	37801	89877	36673	26620	63293	57.9	42.1
Average	28297	19276	47573	22184	14962	37146	60	39.8
Source: Hossain Website								

Table 3: China: Quality – Medical Personnel Input Mixes by Province (1994)

	Relative Personnel Ratio (RPR)				
Province by quintile of per capita income	Doctor	Special Nurse	Asst. Doctor	Nurse	Midwife
I	0.81	0.77	0.82	0.67	0.74
II	0.94	0.95	1.07	0.9	0.61
III	1.34	1.23	1.34	1.26	1.05
IV	0.86	1.15	1.24	1.16	1.4
V	1.9	2.38	1.76	2.48	1.33

RPR= (provincial staff/Provincial Population)/(National Staff/National Population)

RPR exceeding one indicates oversupply and less than one indicates undersupply of medical personnel

Source: Hossain Website

Table 4: China: Affordability: Per Capita Household Expenditure on Medical and Health Care, 1992 (As percentage of Non-food per capita expenditure)

	Quintiles of household per capita income					Expenditure Elasticity
	I	II	III	IV	V	
Instrument	0.04	0.04	0.31	0.41	0.44	0.85
Primary Health Care	0.96	0.11	0.12	0.14	0.13	1.45
Drugs	5.65	4.23	4.08	3.68	2.91	8.11
Herbal Medicine	0.47	0.42	0.44	0.45	0.5	6.63
Service charges	2.05	0.92	0.62	0.76	0.6	1.15
Others	0.11	0.08	0.09	0.1	1.05	0.94
Total	9.28	5.81	5.66	5.54	5.63	

Source: Hossain Website

Table 5: China: Percent Change in Health Indicators by Provinces, 1983-93 (Provinces ranked by per capita income)

	Percent change				
Quintile of Province	Infant Mortality Rate	Maternal Mortality Rate	Coverage of		
			DPT3	Sanitation	Safe Water
Poorest I	-4.1	-4.3	68.8	58.6	89.1
II	-21.8	-4.4	58.9	85.4	90.2
III	-20.3	-10.7	50.2	77.4	59.9
IV	-30.1	-17.3	67.1	77.3	73.1
Richest V	-32.5	-18.3	57.3	38.2	35.4

Source: Hossain Website

Table 6 : Comparison of Rural Health Financing System in China

	Self Payment	Co-operative	Labour Insurance, Public service
Annual outpatient visit per peasant	3.1	3.7	3.6
Unmet outpatient care (%)	20.1	10.7	16.6
Annual admission rate (%)	2.7	3.7	5.4
Unmet inpatient care (%)	20.5	10.3	3.1
Annual medical cost per peasant	14.5	15.8	37.2
Source: Xing – Yuan and Sheng - Lan (1999)			

Table 7: Outpatient fee per visit by households in China (Yuan)

	1994		1997	
	members	non-members	members	non-members
Village health station	17.2	17.8	9.4	20.2
Township health centre	7.9	14.6	21.3	14.6
Total	16.9	15.7	10.1	14.3

Source: Hao et al (1998)

Table 8: Hospital Beds in Selected Countries (per 1,000 people)

Year	Chile	China	Russian Federation	Sri Lanka
1960	3.67	..	..	3.14
1961	..	..	..	..
1962	..	..	..	..
1963	..	..	..	..
1964	..	..	..	..
1965	..	1.11	..	..
1966	..	1.11	..	..
1967	..	..	..	..
1968	..	..	..	..
1969	..	..	..	..
1970	3.78	..	11.27	3.02
1971	..	..	..	..
1972	..	..	..	..
1973	..	..	..	..
1974	..	1.67	..	..
1975	..	1.67	12.29	3.33
1976	..	1.67	..	..
1977	..	..	..	..
1978	..	..	..	..
1979	..	..	12.83	..
1980	3.41	2	12.96	2.94
1981	..	2	13.08	2.94
1982	..	2	13.21	..
1983	..	1.99	..	..
1984	..	1.99	13.41	..
1985	..	1.98	13.47	..
1986	..	1.98	13.54	..
1987	..	..	13.63	..
1988	..	..	13.72	..
1989	3.18	..	13.86	2.4
1990	3.2	2.3	13	2.7
1991	..	2.3	12.7	..
1992	..	2.3	12.2	..
1993	3.1	2.4	12	..
1994	..	2.8	11.8	..
1995	..	2.8	11.7	..
1996	2.7	2.9	..	..
1997	..	2.9	12.1	..
1998	..	2.9	..	..

Source: World Bank (2000a)

Table 9: Physicians (per 1,000 people)

Year	Chile	China	Russian Federation	Sri Lanka
1960	0.56	..	..	0.22
1961	..	..	..	..
1962	..	..	..	..
1963	..	..	..	..
1964	..	..	..	..
1965	0.47	0.63	..	0.17
1966	..	0.59	..	..
1967	..	..	..	..
1968	..	..	..	..
1969	..	..	..	..
1970	0.46	..	2.9	0.17
1971	..	..	..	..
1972	..	..	..	..
1973	..	..	..	..
1974	..	0.67	..	..
1975	..	0.71	3.49	0.17
1976	..	0.77	..	..
1977	..	..	..	..
1978	..	..	..	..
1979	0.52	..	3.92	..
1980	..	0.91	4.03	0.14
1981	..	..	4.14	0.13
1982	..	1	4.26	0.13
1983	..	1	..	..
1984	0.82	0.99	4.42	..
1985	..	0.99	4.5	0.18
1986	..	0.99	..	0.14
1987	..	..	4.65	..
1988	..	..	4.69	..
1989	..	..	4.72	0.15
1990	1.1	1.54	4.06	..
1991	1.07	1.54	4.04	..
1992	..	1.54	3.86	..
1993	..	1.55	3.89	0.15
1994	..	1.88	3.77	0.23
1995	1.08	1.92	3.8	..
1996	..	1.94	..	..
1997	..	1.99	4.62	..
1998	..	2	..	..

Source: World Bank (2000a)

Table 10: Infant Mortality Rate (per 1,000 live births)

Year	Chile	China	Russian Federation	Sri Lanka
1960	112.6	132	..	69.4
1961	..	236	..	..
1962	109	88	..	65
1963	..	96	..	..
1964	..	96	..	..
1965	..	90	..	..
1966	..	84	..	..
1967	89	81	..	61
1968	..	77	..	..
1969	..	73	..	..
1970	77	69	..	53.2
1971	..	66	..	..
1972	69	61	..	48
1973	..	56	..	..
1974	..	51	..	..
1975	..	48	..	..
1976	..	44	..	..
1977	45	40	..	41
1978	..	41	..	..
1979	..	39	27.1	..
1980	31.6	42	22.1	34.4
1981	27.2	41	..	..
1982	23.6	39	..	30
1983	21.9	41	..	..
1984	19.6	38	..	..
1985	19.5	37	20.7	..
1986	19.1	..	..	23
1987	18	38	..	22
1988	18.9	..	..	19.4
1989	17.1	..	17.8	..
1990	16	33	17.4	18.5
1991	14.6	31	17.8	..
1992	14.3	38	18	17.6
1993	13.1	..	19.9	..
1994	12	..	18.7	..
1995	11.1	..	18.1	16.5
1996	11.1	..	17.4	17.3
1997	10.5	32	17.2	17
1998	10.2	31	16.5	16.4

Source: World Bank (2000a)

Table 11: Life Expectancy at Birth (years)

Year	Chile	China	Russian Federation	Sri Lanka
1960	57.3	36.32	..	62.31
1961	..	40.52	..	..
1962	58.03	54.09	..	63.5
1963	..	50.17	..	..
1964	..	..	..	..
1965	..	..	..	..
1966	..	..	..	..
1967	60.65	59.58	..	64.23
1968	..	..	..	..
1969	..	..	..	..
1970	62.4	61.74	..	64.68
1971	..	..	..	..
1972	63.57	63.18	..	64.98
1973	..	..	..	..
1974	..	64.33	..	..
1975	..	..	..	..
1976	..	..	..	..
1977	67.17	..	..	66.71
1978	..	..	..	..
1979	..	..	..	..
1980	69.3	..	67.11	68.2
1981	..	..	..	..
1982	70.72	67.82	68.02	69.2
1983	..	..	..	..
1984	..	..	..	..
1985	..	..	68.78	..
1986	..	..	..	..
1987	72.67	68.67	69.68	70.7
1988	..	..	69.48	..
1989	..	..	69.28	..
1990	73.7	68.87	68.92	71.42
1991	..	..	68.77	..
1992	74.38	69.01	67.76	71.9
1993	..	..	65.24	..
1994	..	..	64.03	..
1995	..	..	64.82	..
1996	..	..	65.99	..
1997	75.23	69.66	66.71	73.1
1998	75.37	69.86	66.96	73.29

Source: World Bank (2000a)

Table 12: Crude Death Rate, (per 1,000 people)

Year	Chile	China	Russian Federation	Sri Lanka
1960	12.6	25.43	..	9.06
1961	..	14.24	..	..
1962	12.2	10.02	..	8.5
1963	..	10.04	..	8.6
1964	..	11.5	..	8.8
1965	..	9.5	..	8.2
1966	..	8.83	..	8.3
1967	10.4	8.43	..	7.5
1968	..	8.21	..	7.9
1969	..	8.03	..	8.1
1970	9.5	7.6	..	7.5
1971	..	7.32	..	7.7
1972	8.9	7.61	..	8.1
1973	..	7.04	..	7.7
1974	..	7.34	..	9
1975	..	7.32	..	8.5
1976	..	7.25	..	7.8
1977	7.5	6.87	..	7.4
1978	..	6.25	..	6.6
1979	..	6.21	10.8	6.5
1980	6.6	6.34	11	6.2
1981	6.2	6.36	10.9	5.9
1982	6.1	6.6	10.7	6.1
1983	6.3	7.08	11.1	6.1
1984	6.3	6.69	11.6	6.5
1985	6.1	6.57	11.3	6.2
1986	5.9	..	10.4	..
1987	5.6	6.6	10.5	6
1988	5.8	..	10.7	..
1989	5.8	..	10.7	6.2
1990	6	6.96	11.2	6
1991	5.6	..	11.4	..
1992	5.5	7.2	12.2	5.8
1993	5.5	6.5	14.5	..
1994	5.4	..	15.7	..
1995	5.5	6.57	15	5.8
1996	5.5	..	14.2	6.5
1997	5.4	7.5	13.8	5.9
1998	5.4	7.52	13.5	6

Source: World Bank (2000a)

End Notes

[1] Fiscal responsibility had three types of revenue sharing principles; central-fixed revenues, local-fixed revenues and shared-revenues.

[2] A group of economists in Chile trained at Chicago School of Economics

[3] Social service expenditure comprises expenditure on health, education, housing, welfare, social security, and community amenities. It also covers compensation for loss of income to the sick and temporarily disables; payments to the elderly, the permanently disabled, and the unemployed; family, maternity and child allowances; and the cost of welfare services such as care of the aged, the disabled and children. Many expenditures relevant to environmental protection, such as pollution abatement, water supply, sanitation, and refuse collection, are included indistinguishably in this category (World Bank 2000b, Pg. 281).

[4] ISAPREs – Instituciones de Salud (Private Health Insurance Companies)

[5] FONASA – Fondo Nacional de Salud (National Health Fund)

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