Chapter IX
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SUMMARY CONCLUSIONS AND POLICY SUGGESTIONS

This chapter summarizes the major findings of the study and discusses the results in terms of policy implications of the health sector in the UTP. To repeat: the main objective of this study is to examine the various issues in healthcare delivery system at decentralised level at UTP and the policy concerns it engenders. In fact, UTP is one among the progressive states in the country displaying impressive health indicators at the macro level. However, healthcare delivery system at the micro or decentralised level in the UTP has not fulfilled the demands of the people. On this background, this study has carried out a household survey on healthcare along with focus group discussion with villagers to capture problems of the people in accessing and utilizing healthcare delivery systems at the decentralised level in UTP. It includes the estimations of the morbidity pattern and its determinants of the people, choice of the healthcare providers, household health expenditure and its determinants of the people at the decentralised level of the UTP. The study also developed a hypothetical community based health insurance scheme and discussed it the village meetings and community gatherings and solicited the people's willingness to join and pay for the proposed scheme. The major findings of this study are summarized in the following sections.

9.1.0 Major Findings of the Study:

9.1.1 Organisational structure of the health sector:

The health sector in UTP has been designed and organized primarily at three levels viz., State, regional and village levels. Of course, the pyramid of the organisational structure of healthcare delivery system of UTP is functioning as a shadow of the national structure in India. It implies that Ministry of Health and Family Welfare and its secretary at the secretariat of the UTP is responsible for legislative functions and framing of government policies and programs. However, the Directorate of health is
responsible for formulation of policies, budgeting and finance of the sector with the consultation with Ministry of Finance. Therefore, the Directorate of health and family welfare services is the key institutional structure and acts as technical wing of the department for implementing and supervising the policies and delivery of healthcare services. In principle, the Director of Medical Services at the divisional levels (at present there are 4 divisions at UTP) are responsible for supervision and control of field operations, management and implementation of health programs in the respective regions. The Directorate of the Health and Family Welfare services in the territory coordinates mainly five functions such as public health; family welfare and maternal and child health; ESI services; immunization programs and information, education and communication (IEC) programs. These functions are supervised by the Deputy Directors of each function respectively. The provision of the administrative setups in the health sector of the UTP is excellent. However, the execution of the administration of healthcare planning in the UTP is really short of trained health management personnel were short of services, which were still witnessed more number of vacant positions in the Directorate of Health and Family Welfare Services.

9.1.2 Health infrastructure:
The study found from the trend analysis of health infrastructure in UTP that there are healthcare infrastructure deficiencies in the UTP. The number of PHCs has been significantly increased from 1985 to 2003 which implies that the government of UTP has made valuable efforts in creating sufficient number of PHCs and thereby reducing the ratio of medical institutions and the people. However, in case of sub-centers, it shows only a marginal increase which does not guarantee that the SCs to serve in the decentralised areas of UTP. This shows that the persistent effort taken by government to establish SC's in decentralised areas of UTP did not materialize. It is also important to note that large numbers of SCs are converted into the PHCs in order to fulfill the norms of the establishment of PHCs in the UTP. This led a situation where there are sufficient numbers of the PHCs according to the population norms of UTP but the quality of the PHCs is not good. It implies that the doctors were not appointed in the PHCs since from the conversion of SCs into PHCs. This is the serious concern of the public health delivery system at the decentralised level of UTP.
The study also found that ratio of hospital facilities serving to population has been higher in the UTP as compared to the national average for the last two decades. It accounted nearly 1.15 per 100,000 population during 1991 to 2003 (Table 3.2) while it was reducing at national level from 1.22 per 100,000 population in 1991 to 1.20 in 2003 (Table 3.3). However, the beds available to the population in the UTP have maintained a lower ratio than the national level during the same period. It is also important to note that there is a shortage for qualified medical doctors in the UTP and their ratio to the population has also been accounted lower than the national ratio.

9.1.3. Healthcare financing:

The study found that the total budget allocation to the health sector in UTP has increased consistently over the years. It accounted nearly 3.42 percent of the total expenditure of the UTP in 1980-81 and increased to 6.06 percent in 1990-91. It registered nearly 23.37 percent of entire decade of the pre-economic reform period of the UTP. Though there was decline in the share healthcare expenditure to the total expenditure of the UTP in the beginning of the post-economic reform period, it has consistently increased over the period. The ratio of total health expenditure to the total expenditure of the UTP in the post-economic reform period has increased from 4.95 percent in 1989-90 to 7.4 percent in 2000-01. It implies that it has registered nearly for 27.12 percent of growth of total health expenditure during this period.

The study found that though there was a significant increase of the total health expenditure and its to the total expenditure of the UTP, ratio of the health expenditure to NSDP of the UTP has not increased more than 1 percent in the entire two decades (Table 3.5). Health expenditure together with the expenditures of the waster supply, sanitation and housing of the UTP has also not increased the ratio of health expenditure to the NSDP of the UTP to 2 percent over the two decades. It ratio has reached to 1.66 percent in 2002-03 (Table 3.6). It is also important to note that the per capita government health expenditure of the UTP was around Rs.8 in 1980-81 and it has increased to Rs.47.35 in 1989-90. The per capital health expenditure of the recent years of the UTP was around Rs.198.4. It demonstrates that there has been significant
increase in the government health expenditure of the UTP. The question is that the per capita health expenditure from the government budgets made any impact on the health indicators of the UTP or are there any positive effects of reduction of out-of-pocket health expenditure of the people in the UTP. The analysis demonstrates mixed results in this context.

9.1.4. Impact of healthcare financing on population health:

The results from the major health indicators like CDR, CBR and IMR are quite impressive at the territory level when compared to national level. However, the variations of health indicators across the rural-urban divides and regional levels are still significant. It implies that health indicators across rural-urban divides have marking declining trends but the gap has not been narrowing down in the UTP. The results from the regression analysis demonstrates that population health indicators such as life expectancy, infant mortality rate and fertility rate were not showing any positive improvements due to economic growth in the UTP.

9.1.5. Morbidity Pattern:

The results of bi-variate analysis associated with morbidity prevalence rate and the Socio-Economic characteristics shows a significant variation. It implies that the morbidity prevalence of the poor or socially backward communities is more compared to the rich or socially forward communities in rural UTP. The results support of existing studies in other States in India that there is an inverse relationship between morbidity and social groups such as caste groups in the UTP. The result highlight that the people belonging to the most backward caste (MBC) accounts 266 per thousand population reported to have higher STM prevalence rates as compared to others in the society (Table 4.5). In the case of SCs (lower stratum in the social hierarchy in India), 203 per thousand population have suffered a STM as compared to 196 for forward caste group during the reference period. The results also confirm the fact that higher the social class of the people; lower the prevalence of STM in the UTP.
The results from the logistic regression analysis also lend support to the hypothesis that there is a significant relationship between reporting of illnesses of STM (Short Term Diseases) and LTM (Long Term Diseases) and the socio economic characteristics of the people in the rural areas. The estimates for reporting STM are positively related with income, social status, household size and residential locations in different status. The other variables such as age, marital status and level of education are negatively associated with the reporting of STM. A similar pattern exists in the case of LTM with few differences. The findings of analysis on morbidity pattern in the UTP demonstrate that there is a significant variation across not only the different socio-economic characteristics of the people but also across the regions (at decentralised level) of the UTP. This may be due to the access and availability resources, which are unequally available to the people in different social class changes in human biology. It is especially true in the case of poorer classes who are lacking adequate nutrients, clean drinking water, safe working conditions and more likely to become ill. However, the causes of illness are basically underlined by four components such as human biology, environment, lifestyle and healthcare organisation.

9.1.6. Demand for Health:

An analysis of the morbidity pattern in terms of the demand for curative healthcare services of the people shows that most of the people in the rural areas are opting for private healthcare providers. However, only about 54 percent patients out of total morbidity rate of the sample sought treatment in the existing healthcare facilities. The study found that among the eight reasons revealed by the respondents, the reasons such as financial constraints and healthcare facility being far away from the home were the top listed reasons in the UTP. It reflects the malfunctions of the government healthcare facilities, which are not accessible to the people and if there is an availability, people needs to pay from their pockets in order to get the medicines and even the attention of the medical personnel in the government providers at the decentralised levels in the UTP.
The study found that the people’s demand for healthcare services for the STM, the private healthcare providers had registered the highest percentage (42 percent) as compared to 22 percent in public healthcare providers and 13 percent for traditional healthcare healers. It is also important to note that even at the decentralised level, the level of demand for private healthcare services were the significantly higher and varied in the UTP. It recorded 43 percent for Karaikal region and 41 percent for Pondicherry region. It may be due to the potential availability of the government healthcare providers at the Karaikal region is less than the Pondicherry region.

The study also found that the pattern of demand for healthcare services for LTM across the UTP regions also remains similar as that of STM having very small deviations. It was found that mostly all the peoples have undergone treatment for Long-term diseases like TB, cancer, hypertension, heart disease, mental disorder, epilepsy, leprosy, and brain tumor. The analyses from demand for healthcare services for both STM an LTM indicate that private healthcare services are in demand among the high-income group for LTM while the lower income group mostly preferred the private healthcare services only for STM.

Empirical analysis on an unconditional demand for curative healthcare (i.e. 4-choice nested multinomial linear model) shows that most of the coefficients are turned to be statistically significant with public and private healthcare providers elasticity of -0.16 and -0.45 for diarrhoea, -0.19 and -0.68 for cold and cough and -0.21 and -0.82 for fever respectively (Table 5.13). It implies that the demand for private and public healthcare services in the UTP is price responsive respectively. In fact, the estimated price responses are large especially in the case of private healthcare services (i.e. -0.45, 0.68 and -0.82). The large values of estimates of price elasticity highlight the economic reasoning of the choice of healthcare provider especially if it happened to be with private healthcare provider in the UTP. Given the rise of cost of healthcare in the private providers without a sufficient quality oriented care provider alternatives, the poor the people could be trapped into the poverty due to the financially catastrophic illnesses.
9.1.7. Hospital cost efficiency:

The cost efficiency and its determinants of the hospitals at the decentralised levels in the UTP have been estimated by both stochastic frontier and data envelopment analysis. The results of total sample for frontier cost function among two primary measured outputs shows that an increase in outpatient visits resulted in a positive and significant impact on total operational costs of the hospitals. However, the quality index, which is the proxy measure for quality of the care services and institutional characteristics of the hospitals, has registered an insignificant relationship with the operational costs of the hospitals. The analysis infers that (a) hospitals at the decentralised levels are inefficient in the territory, which is due to technical and allocative system of resources of the hospitals; (b) the private hospitals appear relatively less inefficient than the public hospitals; and (c) the main determinants of the technical and allocative inefficiencies of the public hospitals are due to inappropriate interventions of inpatient days care, share of medical personnel, beds capacity, quality indices, and choice of the locations; while in the case of private hospitals, it relates only to beds capacity and quality indices. It means that standardization of hospitals and improvement in quality of healthcare services need to be attended immediately in the territory.

9.1.8 Healthcare expenditure of the households:

The study estimated healthcare expenditure of the households and its members. The study found that there is a significant proportion of total income of the rural households spent on healthcare, accounting, on an average, 21 percent for Karaikal and 18 percent for Pondicherry regions respectively (Table 7.1) It also found that the average per capita healthcare expenditure for STM was around Rs.59.6 as compared to Rs.387 for LTM. In fact, the per person healthcare expenditure for both STM and LTM also varied significantly across the regions in the UTP. The average per person expenditure is around Rs.33 for Pondicherry and Rs.43 for Karaikal for STM in both the regions. The lower spending on STM is consistent with a lower prevalence rate in the UTP. The healthcare expenditure on LTM in Karaikal was as high as Rs.230 as against Rs.314 in Pondicherry (Table 7.2). However, the analysis of per person healthcare expenditure of
STM and LTM of the rural households by controlling household characteristics shows a contrasting picture across the regions of the Territory.

The study also has done a detail analysis in identifying the major components of the healthcare expenditure in relation to the total number of households. The study found that the fees paid to the medical practitioners, payments towards drug and medicines and other costs such as clinical tests, surgery, tips (in order to get favor from the medical professionals), transport, special diet and rituals were the main components of healthcare expenditure of the households in the UTP. The results indicate that the payments towards drugs and medicines were larger in proportion to the average total health expenditure on treating STM and LTM of household members at decentralised level which amounted to Rs.10 and Rs.13 per STM and LTM episode respectively (Table 7.4).

Empirical analysis of determinants of household healthcare expenditure function demonstrates that healthcare expenditure for upper percentile income group is positively associated with per capital income implying higher healthcare expenditure for higher levels of household income based on the affordability factor. Contrary to this point, for the lower income group, there is a negative association between the per capita income and household healthcare expenditure. Though this negative association is not statistically significant at 5 percent level, it supports the view that lower income group in rural areas spends a higher proportion for healthcare, which is having a serious implication in terms of poverty trap due to financially catastrophic illnesses of the poor.

9.1.9. Healthcare Financing Alternatives:

The study also carried out analysis on healthcare financing alternatives for the UTP. This particular part of analysis had been carried out in recognizing the facts of rise of cost of healthcare and the limited choices of quality oriented providers in other States in India. The study assessed a viability of community based health insurance (CBHI) scheme in the UTP, which could be managed at the decentralised level. The study also designed a hypothetical community based health insurance scheme at the decentralised
level in the UTP. The viability of CBHI scheme and people's willingness to pay for it were justified in the Chapter 8. The main findings are (1) the insurance and savings schemes are popular in the UTP; and (2) people have relatively better knowledge of insurance schemes than savings schemes. However, the results indicate that only 2.7 percent of the households of the study sample subscribed for health insurance schemes which is less than the national average of 4 percent. Being below the poverty line often comes in the way of getting insured. Perhaps health insurance schemes by the government undertakings and its subsidiaries like National Insurance corporation limited, the new India assurance corporation limited and the oriental insurance corporation limited operating as commercial health insurance schemes have not effectively reached the real needy.

The study found that the people willingness to join and pay for the proposed CBHI scheme in the UTP. It accounts for nearly 90 percent of the study sample households are willingness to join the CBHI scheme (Table 8.3) and out of which 73.2 percent are willingness to pay for CBHI scheme. It is also important to note that the willingness to pay for the proposed CBHI scheme has not varied significantly across the regions (Table 8.5). It accounted for little higher in Pondicherry (72.7 percent) as compared to Karaikal (71.5 percent). It is also important to note that average willingness to pay for the proposed CBHI scheme was around Rs.228.8. It implies that every household head willingness to pay Rs.20 per month for himself and for their family members. Of course, it may be sufficient to cover for the entire family with Rs.228.8 and it will be an sufficient amount for an individual to get insured for their health risks. The highest bidding was between Rs.241 and Rs.480 for which nearly 31 percent of the households willingness to pay for the CBHI scheme in the UTP. However, the willingness to pay for the CBHI scheme across the caste groups varied significant. It is also important to note that the willingness to pay for the CBHI scheme by the low caste household groups (i.e. SC and ST) in social hierarchy in the UTP was around 74 percent, which is higher than the households of the backward caste (BCs) and most backward caste (MBCs). Both BC and MBC accounted nearly 71 percent respectively. The interesting to note that though the proportion of willingness to pay for the CBHI scheme by the SC and STs were higher than the BC and MBCs, the amount of
wiliness to pay for the scheme was recorded higher in the case of BCs (Rs.229.3) and MBCs (Rs.232.4) than the SC and STs (Rs.225).

The results for the logistic regression analysis lend support to the hypothesis that there is a significant relationship between willingness to join and willingness to pay for the CBHI scheme and social, demographic, economic and physical accessibility of the households in the UTP. It is also important to note that most households opted for a comprehensive medical care benefit followed by the hospitalized and hospitalized and chronic illnesses care benefits. Nevertheless, the results confirm that the higher proportion of willingness to pay for CBHI scheme guarantees, the viability of CHBI scheme in the UTP.

9.2.0. Policy Options:
In a nutshell, the results from the empirical analysis of this study show that insurance or savings schemes can be popular in the UTP. In fact, the people have relatively better knowledge of insurance schemes as compared with saving schemes. Most of the people stated they were willing to join and pay for the proposed rural health insurance schemes. However, the intensity of willingness to join was greater than the intensity of willingness to pay. Indeed socio-economic factors and physical accessibility to quality health services appeared to be significant determinants of willingness to join and pay for such schemes. It is also important to note that the private healthcare providers are emerged as the choice of the people in the UTP (Chapter 4). The results also demonstrate that the choice of private healthcare provider is significantly associated with the socio-economic status and physical accessibility to the people in the UTP. This results support the findings emerged from the existing studies (Mathiyazhagan, 1994; 1998; 2003a; 2003b).

The estimated results are in accordance with the theoretical predictions and also support the validity of CV method using the binary responses on willingness to pay for the proposed health insurance schemes through community participation. It is important that the findings are viewed in the context of UTP’s on-going economic reform and structural adjustment. The economic reforms curtail government spending
on social status including health, in order to control and stabilize monetary factors. In the light of the findings of the present study, the government may be able to redefine its role in providing healthcare services and tap the potential of rural households in bearing the healthcare costs. In this context, the role of private organisations/NGOs assumes importance as care providers.

Role of private organisations/NGOs are important for promoting insurance schemes in decentralised administration under the Panchayat Raj System in the UTP. In this new context, people will have a greater choice of healthcare services. This could provide an alternative framework for designing a viable rural health insurance scheme in the decentralised areas of UTP.

The result also suggests that households spend more money for health expenditure in total or in particular for getting treatment from the formal healthcare provider in the rural areas. Given the morbidity pattern and the role of private healthcare provider in the curative services, the constant availability of drugs in the rural areas may not be feasible with low price under the product patent. It is also a highly imperative issue in health planning and financing. Thus there is a need for providing protection to the lower income people in terms of supplying quality healthcare by the government. The much discussed policy option of the recent governments, by opening of the insurance sector to the private partnership, includes more options to the voluntary health insurance schemes. In this context, the implications of micro-health insurance schemes are vital. The results suggest that people are willing to pay for rural health insurance scheme at Panchayat Level administration. It implies that there is viability for the sustainable community financing for health. In such a case, the sustainable financial resources should be properly channeled to ensure not only the constant availability of facilities at the provider level but also quality healthcare services to the rural areas of UTP.