



CHAPTER 5

FEASIBILITY OF HEALTH INSURANCE SCHEME FOR INFORMAL SECTOR IN DELHI

This chapter comprises of four sections. The first section examines the existing health insurance schemes in India. In the second section, essential conditions and other requirements for implementing a health insurance scheme for workers in informal sector is discussed. The third section provides major elements in the design of a health insurance scheme. In the final section, two alternative health insurance schemes for workers in informal sector are designed taking into account various good elements of the schemes in other developing countries and through personnel knowledge and discussion with experts in the field. A methodological description of various tasks involved in implementation of the proposed schemes is also presented in the final section.

5.1 An Evaluation of Existing Health Insurance Schemes

This section provides an examination of the existing health insurance schemes in India. As mentioned earlier, there are two major health insurance schemes functioning for the industrial workers (ESIS) and central government employees (CGHS). Besides, there are few schemes run by the government of India enterprises are also providing health insurance coverage to a small proportion of the population. The experiences of these schemes are examined in terms of its coverage, source of finance, benefits covered and problems.

5.1.1 The Employees State Insurance Scheme (ESIS)

The Employees State Insurance Scheme (ESIS) represents the most significant land mark in the annals of social security in India, as it was for the first time in the history of the country that the principles of social insurance originated in the scheme as the public carrier of the liability to provide protection to the workers of non-government sector. The Employees State Insurance Scheme was created under the ESI Act of 1948, and launched with the support of state governments, employers and employees. The main purpose of this scheme is to protect the industrial workers from the common

hazards and risks of industrial employment by providing them comprehensive coverage on a contributory basis.

Administrative Set up of ESIS

The ESIS is administered by an autonomous body, Employees State Insurance Corporation (ESIC). The corporation consists of the representatives of the central and state governments, employers, employees, medical profession and the parliament. The head quarter of ESIC is located in New Delhi and it has a director general as its chief executive. Each region has a regional director who looks after the medical aspects of the scheme. As the medical benefit is administered by the respective state, each state has an administrative medical officer to look after the medical arrangements.

Coverage of the Scheme

The ESI act of 1948 applies in the first instance to non-seasonal factories using power and employing 20 or more persons. The amendment of this act in October, 1989 provides in the first instance to non-seasonal factories using power and employing 10 or more persons and non-power using factories and specified establishments employing 20 or more persons. Initially, workers with monthly wages not exceeding Rs.400 per month in non-seasonal power using factories employing 20 or more persons were covered. In 1968, the coverage was extended to workers with monthly wages up to Rs.500 per month and then it was extended in 1975 to workers with monthly wages up to Rs.1000. In 1985, it was again raised to Rs.1600 and these facilities have now been extended to employees in receipt of wages not exceeding Rs.3000 per month. The rate of contributions from employees and employers is fixed at 2.25 percent and 5 percent respectively of the wages payable to the employees. Employees in receipt of average daily wages below Rs.6 are exempted from the employees contribution. The state governments share one-eighth of the expenditure on medical care. The contributions collected are utilized for providing medical and cash benefits to insured persons and their families as well as for meeting the administrative expenses of the ESIC.

Benefits Under the Scheme

The ESIS being a multi dimensional social security scheme provides a number of benefits for the insured persons. These benefits are either in cash to compensation for wages lost due to medical reason or in terms of services and in kind covered by medical benefits and cash benefits. The scheme provides a full range of medical benefits through a net work of dispensaries, specialists centers and ESI hospitals. The cash benefits include sickness benefits, maternity benefit, employment injury benefit, temporary disability benefit, permanent disability benefit, dependents benefit and funeral benefit.

Inpatients treatment is given through ESI hospitals and annexes and reservation of beds in other government hospitals. Outpatients medical services are rendered through a net work of full time ESI dispensaries, part time mobile and employers utilization dispensaries and clinics of insurance medical practitioners. The progress of the scheme is shown in the table 5.1.

Payment Mechanism

The scheme is served by the full time medical officers and specialists who are directly appointed or taken on deputation by the ESI Corporation or the state government. Doctors and other medical personnel are paid salaries as laid down by ESIC. However, under the panel system the doctors and the specialists are paid on the basis of an agreed capitation fee and lump-sum remuneration fixed by the ESIC.

Table 5.1 : Coverage and Progress of ESI Scheme

(Figures in 100,000)

Coverage	1988-89	1990-91	1993-94
No. of Factories & Establishments.	1.17	0.95	1.50
No. of employers	1.17	1.33	1.62
No. of employees	59.97	61.07	66.27
No. of insured women	7.30	7.95	9.66
Total no. of beneficiaries	264.11	2 67.49	286.92

Source: Employees State Insurance Corporation, Annual Reports, selected years

An Evaluation of the Scheme

Due to spiraling price level in the country, the total as well as per capita expenditure on medical benefit per insured person has raised and it is also likely to increase in the near future. The total expenditure on medical benefit by both ESIC and state governments has raised by more than 126 percent within a period of 5 years. i.e. from Rs.3705.8 million in 1987-88 to Rs.6637.3 million in 1993-94. The per capita expenditure has increased nearly 142 percent during this period. Income of the corporation has been raising more than total expenditure due to increase in coverage as well as wage escalation.

The per capita expenditure per annum on medical care by the government under ESI scheme is almost more than five times the per capita expenditure incurred on public health & family welfare program by the various state governments, However, there is dissatisfaction among the beneficiaries about the quality of medical care they receive. The ESI scheme is getting criticisms from various sections on account of non performance.

Anand and Aggarwal (1985) had analyzed various costs components of medical care in ESIC, Delhi. The authors found that Delhi has taken a lead in cost accounting systems and economy measures in the use of drugs, dressings and use of telephones. On the contrary, the study identified many bottlenecks such as inadequate and over working staff, inadequate furniture and other facilities and congested dispensary buildings etc, affected the satisfaction of beneficiaries. Talwar (1985) identified the problems such as absence of operation theatres, non-existence of routine laboratory facilities, lack of specialties in different referral centers, large queuing, lack of ambulance services, indiscriminate referral for special consultation, and inadequacies of resource management both monetary and non-monetary.

Joshi (1986) observed that even though health insurance coverage has expanded both vertically and horizontally and there has been many fold increase in the area of institutional growth, manpower inputs, membership and expenditure, however, with its different years of implementation in the various states, the scheme has not been able to develop itself as self sufficient and independent entity due to its heavy dependence on other hospitals /institutions owned by the government and private agencies. Indian Institute of Management (1987) examined the potential role of health insurance in financing health care

in two states in India. The study pointed out many reasons for the dismal progress of the scheme such as low insurance conscious of population, ignorance and illiteracy, low priority to the health insurance business by insurance corporations, and lack of marketing approach.

Recently various alternatives are being evaluated to provide satisfactory services to the beneficiaries. One of the proposals is that the ESIC should take over the responsibility of administering medical benefit to the beneficiaries from the state governments. The other suggestion is to entrust the administration of the medical benefit to a committee in which the members of various interests including the corporation and the state governments are represented.

5.1.2 The Central Government Health Scheme (CGHS)

The Central Government Health Scheme (1954) is another broad health insurance scheme for employees of central government. This scheme provides comprehensive medical care through the net work of allopathic dispensaries as well as ayurvedic, homeopathic, unani and siddha dispensaries/unit. The services provided include and supply of medicines, laboratory and X-ray investigation, domiciliary visits, emergency treatment, antenatal care, post-natal care, advice on family welfare, specialists consultation and hospitalization facilities in government hospitals as well as in hospitals recognized under CGHS. The beneficiaries are the employees of central government and autonomous organizations and their dependants, the retired employees of central government, It also provides medical facilities to the Members of Parliament (MP), ex-MP's, ex-governors, retired judges of supreme court and high courts, freedom fighters, and members of public in 14 specified areas in Delhi. This is an urban based health insurance scheme and operates in 18 cities in the country. The major part of expenditure of the scheme is being met by the central government, with a nominal contribution from employees. As on March 1994, the scheme covered nearly 4.02 million beneficiaries.

New Initiatives By the Government

The government has taken a few initiatives to streamline the functioning of CGHS. Firstly, with effect from 21 st January 1996, CGHS beneficiaries have the option of availing of specialized treatment either in the government hospitals extending CGHS cover or at a CGHS recognised private hospitals

after obtaining the recommendation of a CGHS specialist or government hospital, as the case may be. Secondly, the procedure of referral to recognised private hospitals has been considerably simplified, so that the parent department of the serving employees can directly accord permission for their treatment. Thirdly, the rate of major medical procedure have also been rationalised in keeping with raising costs. Finally, the expenditure to be reimbursed would be restricted to package deal rates approved by the government from time to time.

Like the ESI scheme this scheme is also not free from drawbacks. Many studies in Delhi identified the problems in the functioning of this schemes. For instance, Chaudhury (1990) identified over crowding in the dispensary causing delay in securing services, out of stock or non supply of drugs etc. forced people to seek health care in private facilities. These findings were also endorsed earlier by Kamala Mohan (1987) in Delhi. Since the contribution by the beneficiaries are set very low, the studies suggested to raise more contribution from employees so that additional resources could be used for improving the services of dispensaries.

5.1.3 Other Health Insurance Schemes

In 1986 the General Insurance Corporation of India (GIC), a government of India enterprise was established and group and individual health insurance began to be marketed under the brand name of mediclaim. The standard mediclaim policy covers only hospital care and domiciliary hospitalization benefits by which is meant specified medical treatment provided in lieu of inpatient treatment. Although some insurance companies have experienced with direct reimbursement to hospitals and other providers, at present what is offered is reimbursement insurance, whereby enrolees are reimbursed for medical claims only after payment are made out of pocket to the provider. Premiums, eligibility and benefits are for all subsidiaries are prescribed by the GIC, so that these subsidiaries do not compete along any of these dimensions.

The medical insurance scheme set up under GIC is inadequate to handle a large scale health insurance program. The over head cost are quite high and they lack the inclination and the expertise to deal with large volume of health insurance business (Krishnan,1996). Moreover, these schemes are operating as part of life insurance business and they do not have the incentive

to canvass health insurance business. Furthermore, reimbursement system under these schemes is cumbersome and unhelpful for the poor since they would have neither the cash for advance payment nor could wait a long period to receive payment.

Jan Orgya Bim policy now being offered by the GIC is yet another new scheme of medical reimbursement insurance being offered on an individual basis. The premium for the youngest age group is only Rs.70 per year, as against a coverage limit of RS. 5,000 per year. Higher premiums are charged for older persons or those with spouse or dependants. Yet the premium remain low relative to the maximum coverage. Unfortunately, these policies contain too many exclusions which lead to rejection of claims. Ashadeep by the Life Insurance Corporation of India and senior citizen's unit plan by the Unit Trust of India etc. are the other schemes available for middle class and lower middle income group, which is also is not adequately catered to by the existing government delivered health system.

A review of existing health insurance schemes in India suggests that CGHS and ESIS are the two broad schemes and these schemes cover nearly 31 million population. The health insurance schemes run by the government enterprises could provide coverage to only 2 million population. As mentioned in the review of health insurance schemes for informal sector the role of NGO's in health insurance schemes is in fact limited. The experiences suggest that these schemes can not be totally self-reliant. Though the coverage of target population in the schemes are limited, yet play an important role in providing health services to a group of population in informal sector.

5.2 Requirements for a Health Insurance Scheme for Informal Sector

In the light of experiences gained from various types of health insurance schemes for informal sector in various countries and the guidelines provided by international organizations such as WHO, World Bank and International Labour Organization, the requirements for implementing a health insurance scheme for informal sector in Delhi is discussed under different headings as follows :

5.2.1 Knowledge of Epidemiological Pattern / Disease Pattern

The feasibility of health insurance depends on whether all types of health services can be provided to the population to be insured. In order to know various range of services provided it is necessary to obtain data on epidemiological or disease pattern among the population for whom the scheme is proposed. It is also necessary to obtain data on the expected rate of utilization of health care services by the population. There are various ways of obtaining data on the utilization of health services.

- experiences from existing schemes covering specific groups eg. ESI scheme for industrial workers in Delhi.
- experiences from other states in India with similar social and economic pattern.
- experiences from pilot projects covering specific area or population in informal sector, or
- by conducting a household survey among the population to be insured.

The last method of collecting data on morbidity pattern is more appropriate as it provides a complete information on the epidemiological pattern related to all chronic and acute illnesses, type of common diseases, utilization experiences etc. of the group for whom the insurance is proposed. The utilization data with respect to both inpatients and outpatient treatments by the population is not only important for estimating costs, but also for planning future health care infrastructure in the state. The utilization rates by the population is greatly influenced by morbidity pattern, clinical practices, accessibility and availability of services, infrastructure facilities and most importantly perception of disease by the population. The utilization rates are also depends on the health behavior and practices among the group. If there exists a high prevalence of infectious disease in the group, then immunization and other preventive measures may be the main items of expenditure of the health fund. Therefore, design of the benefit package will suit the need of the population to be insured.

A majority of low income workers engaged in informal sector live in slums in unhygienic surroundings. Their problems are more acute comparing to the overall health status of urban population. Therefore before planning for any health insurance scheme for this segment of population it is important to

know whether the proposed insurance can afford all types of health services to the population. The morbidity prevalence of the population recorded in the study is shown in table 5.2. The table shows that the monthly prevalence rate of infectious diseases is 55.20 which is quite higher than other types of diseases. The prevalence rate of respiratory systems and digestive system related diseases are 31.04 and 25.87 respectively. These figures give only a fragmented details about the morbidity pattern, thus a large survey is required for getting a reliable and more accurate information on morbidity pattern.

Table 5.2 : Morbidity and Prevalence Rate of the Sample Population

Category of symptom	Number of illness episodes (3 months)	Percentage distribution	Monthly prevalence rate
Infectious diseases including fever	128	35.65	55.20
Respiratory system	72	20.05	31.04
Digestive system	60	16.71	25.87
Pain/aches	28	7.80	12.07
Skin diseases	22	6.13	9.48
Cardiovascular related diseases	16	4.46	6.89
Injuries and accidents	8	2.23	3.45
Surgery	2	0.60	0.86
Others	23	6.40	9.92
Total	359	100.00	154.80

5.2.2 Health Policy and Objectives

The chief goal of health policy in a country is long life and good health for the population. The health policy objectives is intended to achieve these goals are normally expressed in terms of measures to protect the population from avoidable diseases and provide efficient health services for those who will benefit from them. The health policy adopted by the government depends on the economic, historical, cultural, institutional and political environment, the country's stage of development and government policy objectives.

The constitution of India envisages the establishment of new social order based on equality, freedom, justice and the dignity of the individual. It aims at the elimination of poverty, ignorance and ill health and directs the states to

regard the raising of the level of nutrition and standard of living of its people and improvement of public health as among its primary duties, securing the health and strength of workers, men and women, especially ensuring that children are given opportunities and facilities to development in a healthy manner. Since the inception of planning process in the country, the successive five year plans have been providing the framework within which the states may develop health services infrastructure. National Health Policy (1983) laid down a number of goals to be achieved by 2000 A.D. Since then all state government tried to build up its own health infrastructure within the support from the central government. However with a heavy resource crunch facing the economy, state governments are forced open many options for mobilizing additional revenue for health.

Insurance can help to meet health policy goals in many ways. Firstly, it provide additional funding which is not easily available from other sources. Secondly, it may help to avoid many deficiencies in the existing public health care system.

5.2.3 Health Care Infrastructure

Health insurance provides the insured population an entitlement to health services. It is therefore important to ensure that the existing health infrastructure can provide those services efficiently. When an individual pays insurance premium he/she expects accessibility to a better care from insurer. This is more so in case of countries like India where the existing system is state funded or heavily subsidized. In these circumstances people will question the advantages and resist the introduction of additional and highly visible insurance contribution unless it bring demonstrable additional benefit. However introduction of insurance scheme should not in any way affect access to emergency care of population who have no ability to pay insurance contribution.

Additionally, before planning for a health insurance for a selected group of population either its voluntary form or compulsory form, the government should make sure two things viz.,

- whether the health services infrastructure exists to provide the services to which the insured population are entitled.

- Will the scheme be able to offer significant advantages to members without denying access to emergency care to the rest of population.

With regard to the first issue, Delhi being the capital city of India has relatively better health infrastructure facilities than other states in the country. However, with the growing population mainly due to exodus of rural migrants from other states the existing government facilities both central and state can not cater to the growing need for health care. Moreover, many studies in Delhi showed that a majority of population depend on private health facilities for treatment especially for outpatient care. In this context, government has two options.

- The first option is to open the scope of private sector in the provision of health services to insured population. In other words, the government may opt for a public- private mix provision of services.

- The other option is to restructure the existing central and state government health facilities to suit the demand for the insured population.

5.2.4 Economic Infrastructure

The fund collected under the insurance system should be used primarily for providing services and not for financing the administration of the system. The new organizational set up for the health insurance system should be able to operate efficiently. There should be some basic infrastructure like educational personnel, system of law within which the insurance law can operate, system of assessing incomes for the purpose of pay roll deductions and procedures for collecting other pay roll contribution.

The most important issue related to health insurance for informal sector in Delhi is the lack of any administrative machinery to assess income of workers and procedures for collection of the contribution. A compulsory health insurance can only be developed if these arrangements can be put in place. However, a voluntary insurance scheme does not require such machinery but it need an efficient administrative machinery to manage the health fund.

5.2.5 Culture, Traditions and Politics

Health insurance is always introduced against a background of existing attitudes and traditions in the provision of health services. Since health services have been provided free or heavily subsidized by the government there may be resistance to changes to a system where payment is more visible. Health insurance is based on mutual support and involve transfer of resources from relatively richer and healthier people to relatively poorer and sicker people. It works well when there is a consensus among the population that mutual support is a good thing. Moreover, the nature and implementation of any health insurance scheme can not be isolated from the political and economic values and environment of the state. The influences which resists taxation system, fiscal policies, political commitments to people's health may have a regressive or promotive effect on the viability of health insurance and outcomes from such schemes. In India, the political commitment is one of the most important factor and therefore insurance protection for urban informal sector should be at the top of political agenda.

5.2.6 Institutional Arrangement

The effective implementation of health insurance for informal sector calls for some new institutional arrangements. Health insurance is a highly specialized segment of insurance and in all countries which have health insurance scheme, there exists a separate entities to deal with it. Therefore first task is to create a separate health insurance system at state level. Another important element is to determine which system is most likely to produce health care efficiently. It is argued that not only does the direct pattern produce better quality care, but also that it does so more efficiently, particularly it avoids the problem faced by third party insurers of attempting to find a method of payment for doctors and hospital that promote efficient behavior.

As mentioned earlier, Delhi has multiple insurance system covering different group. The schemes such as the ESIS and CGHS do cover a substantial number of population in the organized sector, but other schemes run by government enterprises are multiple and each scheme covers only a small proportion of population. Such structures tend to create high administrative costs and unable to take advantage of economies of scale that can be engaged by large insurance agencies. The co-ordination and unification

of separate insurance fund and the linkage of insurance scheme to the MOHFW and ministry of labour is also necessary. The integration of health services for the insured with public health services both central and state by insisting that insurance agencies should provide medical and allied services partly or wholly through the existing facilities. However, the choice of health insurance scheme will clearly depends on the existing pattern of services, their ownership or payment system in each state.

5.2.7 Awareness and Acceptability by the Population

One of the most key elements in the feasibility of health insurance scheme is the awareness of the principles of health insurance among the population to be insured. They should accept this as a risk sharing mechanism among population. There should also be a clear cut descriptions and definitions by the mass media when reporting debates surrounding the possible introduction of health insurance scheme. Once people have a clear conception about the solidarity scheme and then it would be more valid to ask their ability and willingness to pay for health insurance arrangement. The importance attached to health insurance by the population may be greatly influenced by educational system, priority given to health care compared to other need, perception about symptom and disease by the workers.

The low income workers in the informal sector mostly are less educated with low level of knowledge about their health problems and have low perceived need for health care. And they even rarely aware of the role of health insurance scheme as a protection against illness. Therefore it would be a formidable task for the government to increase the awareness of the people about this solidarity concept. This can be achieved by various focus group discussion with urban community and through mass media.

5.2.8 Population Coverage

There is no general rule about the proportion of population which should be covered by a health insurance system, although protecting every one in the population against the financial burden of health care in case of sickness is regarded as an expression of social solidarity (Normand and Weber,1994). Many countries with universal health insurance system started by protecting

sub-group of the population such as employees in government, or workers in large enterprises over time coverage has been extended to other groups.

India has already established a health insurance system in which all employees of central government, state government and workers of all registered establishments employing less than 10 workers are covered under health insurance. The remainder of population is workers in all other establishments employing less than 10 workers, self-employed and casual workers and their dependents. In Delhi nearly 70 percent of the urban work force has not been covered under any health insurance schemes, of which a bulk proportion forms self-employed, casual labour, and contract labour. In any context it may not be feasible for the government to establish a compulsory health insurance system for all this segment of population because of difficulties in registering these groups and in assessing and gathering contributions. Even in developed countries with long traditions of social health insurance, the coverage of self-employed had many practical problems.

The registration of family members often poses administrative problem. Registration is often incomplete or persons may be illegally registered as dependents. Therefore it is very important to define exactly what is meant by dependents wife, children, parents, grand parents etc. This is so essential when insurance coverage is extended to all dependents. However, such problems may be minimized due to the fact that the government of India has followed an unique registration system of electoral identity card and family ration card. Delhi state has already initiated this system.

5.2.9 Willingness and Ability to Pay Contribution

Another most important element in the feasibility of a health insurance scheme is the ability and willingness to pay contribution by the population to be insured. This would require a comprehensive survey to estimate the maximum premium or contribution that households would be willing and able to pay, the morbidity pattern, community risks, and cost for outpatient and inpatient episodes in facilities preferred by households. All these information will help to generate data regarding demand for population that would guide policy and planning in evaluating the feasibility of the schemes. These information can also be used to derive the level and pattern of future demand for community health insurance. The contingent valuation approach can be used to estimate future

demand for health insurance. The key to this approach to valuing “new” goods in the construction of a hypothetical market for good under consideration. Based on the argument that decisions about new goods or infrequently purchased goods are based on expectation rather than experience, households willingness to purchase particular health insurance cover can be measured. The knowledge of various socio-economic and demographic variables including household size, age structure, household income, consumption expenditure, educational status will also help to model the demand for insurance.

5.2.10 Feasibility of a Compulsory Health Insurance

The sources of revenue of compulsory health insurance scheme are contribution by employers, contribution by employees and state subsidies. The contributions, by employers and employees are wage or earnings related. The earnings subject to contributions are very often limited to that portion of earnings that does not exceed a prescribed ceiling. The rate of contribution due from employers is almost invariably higher than the rate of employee contribution. As mentioned earlier in the existing scheme employee contributes 2.5 percent of monthly wage and employer contribute 5 percent and the maximum wage ceiling has been raised to Rs.3000 per month. The contributions in absolute term varies from worker to worker but all members entitled to the same benefits. The state subsidy forms one-eighth part of total medical expenditures.

For a compulsory insurance scheme for informal sector it is first essential to identify and register all establishments under this sector. According to the existing law, establishments under all major economic activities employing 10 or more are required to register under the factories act of 1948 and they are also required to provide at least basic minimum health coverage to their workers in any form. Accordingly, a majority of such establishments are brought under the existing ESI scheme while some establishments reimburse the medical expenditures of their workers and others have some arrangements with providers or through setting up their own health facilities.

However, a vast majority of establishments under the informal sector neither provide any medical coverage nor submit their returns to the state governments. Sales tax is the only revenue which the government receives from

most of these establishments. These sector has a potentials of generating additional revenue for the government if an appropriate administrative machinery is set up to identify them. Moreover, many establishments employ workers under the category of casual workers or daily wagers simply to evade from the existing law. In many cases workers are employed as casual labour for many years and are giving a wage lower than the minimum wage prescribed by the government. Furthermore, names of many workers do not appear in the pay roll register. Therefore the feasibility of a compulsory scheme depends on the extent to which this problem is minimized. The only possible solution rests on the government's initiatives and other legal action taken by the government on these issues.

A government contribution to a compulsory insurance scheme can be of two forms.

- The first one is the government can take responsibility for financing the health infrastructure required to while income from employers and employees contribution is expected to cover current benefit costs and administrative overheads.

- In the other form, government can pay the administrative costs only or to assume permanent responsibility for any shortfall of income that may result at the end of a fiscal year.

For informal sector health insurance the former role of the government is required, due to the fact that contribution income may not meet entire cost of health care. Therefore a full participation of government is required if health insurance cover workers outside formal employment. WHO (1998) observes that any scheme for informal sector help raise extra revenue for health in varying degree, but they only succeed where this additional revenue is supplementary to government revenue and not a substitute for them. There should continue to be a need for government subsidy in order to ensure that poor have access. Insurance scheme must accept all these within the defined population group to be covered. Under this scheme there is no room for rejecting any one with a history of previous illness or large number of dependents.

5.2.11 Feasibility of a Voluntary Health Insurance

A voluntary health insurance is a scheme under which membership is not mandatory and people who are willing and able to pay premiums join the schemes. Private health insurance is the major form of voluntary health insurance. Voluntary schemes are likely to suffer from adverse selection, especially if premiums are community rated. The healthy will regard the policy as too expensive and will not enroll. Those with high risks will enroll and thus raising the expenditure of the scheme. However, experiences in many European countries shows voluntary insurance can be an important precursor to compulsory health Insurance (Mills,1996).

A prepayment system can help to reduce the problem of adverse selection, when it is difficult to make a system compulsory for all the population in the geographical area in question. However, the risk that only people in poor health will join the scheme is not negligible. The scale of this problem could be reduced if certain services can be reserved for those who join by offering them priority access to care. If the management of the fund and the provider are same, it would help limit the problem of cost escalation.

5.3 Major Elements in the Design of Health Insurance

The major elements to be considered while designing a health insurance scheme for urban informal sector population in the context of Delhi include the following :

1. Population to be insured

The population to be insured is a most essential element in an insurance scheme. While deciding what type of population to be insured, resources availability and efficiency in use of resources are to be considered. In other words, type of population covered will affect all other elements in the insurance system. If the system can accommodate all the workers in the informal sector, it may improve equity. Since informal employments create substantial difficulties in identifying beneficiaries to assess their incomes, and to collect contribution it is important to know which category of this sector is targeted. Should it be occupational basis or by size of employment ? Should it

cover all categories of workers including self employed ? Should the coverage be extended to all members in the family or individual basis.

2. Premium setting

The sources of health insurance premium for a compulsory scheme are possibly the contribution from insured, employers and government subsidy and for a voluntary scheme the contributions of insured and government (subsidy). The nature and sources of contribution will decide the form of health insurance schemes. In informal sector, the contribution from all employers can not be expected and moreover estimation of the wage related premium from employees is also impracticable. Furthermore, a considerable number of informal workers do not have any permanent employers. Therefore insurance premium are not only from the insured worker, but also from the government in the form of subsidies. These combined together should meet the expected cost of health care. The premium rate is acceptable to the population to whom the scheme is proposed.

3. Basis for premium

The basis for charging premium would directly influence people's choice to join the insurance scheme. In informal sector, it is not reasonable to charge a same level of premium from all type of employers/employees. The premium setting should take into account the nature and size of establishments and wage level of workers. However, if the scheme is voluntary, fixed rate for every insured will lead to adverse selection. It is reasonable to charge a premium in terms of probability of utilizing health services by the insured group. However, premium should be based on the economic ability of the insured. The scheme should also help to promote equity among population through cross subsidy.

4. Ownership of insurance

Based on the review of health insurance for informal sector in other countries and also the experiences in India suggest that ownership of insurance is a key to successful operation of a health insurance scheme. If the insurance is run by a private agency, it fails to protect the poor income workers. but they are more efficient from other points of view. On the other hand, the

state supported insurance schemes can some extent protect the underprivileged, although the efficiency of such operation is still questioned. Experiences in many countries suggest that government run insurance often failed to control over utilization of health services and escalation of medical expenses due to unreasonable medical activities. However, government involvement could help to extend coverage of population. Appropriate measures should also be taken to control moral hazard and cost escalation. These problems could be solved by limiting the number of visits per year and by appropriate co-payment system.

5. Type of insurance

Insurance may be compulsory or voluntary scheme. Type of insurance can largely affect provision and utilization of health services. A compulsory insurance will help to improve the coverage of insured population. It will also help to improve the health status of larger number of people and equity as well. However, such schemes will have huge constraints such as availability of resources, accessibility and availability of health services and efficiency of operation. A voluntary scheme on the other hand, may help to improve efficiency in resource utilization and quality of services, but has limited role in achieving equity in health care, and coverage of large population.

In the context of informal sector in Delhi it seems that any scheme without considerable amount of state subsidy may not succeed. This is more so when the ability of workers to contribute to the insurance scheme is limited. Experiences in India also suggests that without government support voluntary or prepayment system failed to cover a significant proportion of target population. Therefore both type of insurance schemes can be experimented depending on the type of population it intends to cover.

6. Type of benefits covered by the insurance

The ideal benefit package should deliver the kind and level of health care services that insured population are accustomed to and which are considered necessary to maintain and promote good health. The entitlement provision must be planned carefully, in the context of the socio- economic and demographic circumstances of the household engaged in informal sector. While planning for benefit package, issues such as availability of financial

resources, existing infrastructure facilities, quality of services, health care priorities, health care utilization rate by population to be insured, type of co-payment system, cost of providing services, disease pattern among the population and provider payment mechanism etc, should be considered.

7. Health care providers

A successful insurance system depends partly on the availability of high quality, appropriate health services for the insured population. The providers of service may be a mixture of government, private, charitable and religious owned facilities. If the health services infrastructure is insufficient or inappropriate to fulfill patient's entitlements the government can create incentives for private provider participation. However, there must be a mechanism to ensure that the right services are available to meet each need and there are incentives for cost containment. In the Indian context, any scheme for informal sector should involve private sector because the existing public health care provision will not meet the requirements for the insured population.

8. Provider payment mechanism

There are several methods for paying providers. Fee for service, case payment, daily charge, bonus payment, flat-rate payment, capitation fee, salary and global budget are the commonly used provider payment mechanism. Each method has different effect on quality of health services, cost containment and administration. A well designed provider payment system must allow the providers to achieve reasonable income, in order to motivate them to produce services of good quality. It must also prevent the kinds of waste and unnecessary service provision. Moreover these systems are major instruments for cost containment. Some systems have a clear advantage over others with respect to one or more performance characteristics. It is not easy to choose between the system and the most efficient system will depend on the local situation. In some situations the systems can be combined, which can produce a unique set of incentive, encourage certain behavior or penalise inappropriate health service provision patterns.

5.4 Design of Health Insurance Schemes for Informal Sector

The foregoing discussions in this section reveals that it is improper to identify an appropriate health insurance scheme for the manual workers in the study area. A successful insurance scheme requires a broad risk pool with healthy and unhealthy members and both higher income and lower income workers. It should also help for cross subsidization from higher incomes to lower incomes. The population in the study comprised of manual workers whose incomes are presumably low enough to contribute to any health insurance arrangements. Moreover, the data analysis showed that about 58 percent of the households have no ability to pay for health care. Therefore in this context, a health insurance scheme should cover entire work force in informal establishments for a large risk pooling.

5.4.1. Design of a Voluntary Health Insurance Scheme for Informal Sector

1.Objectives

This scheme aims to provide all outpatient and inpatient services including MCH and primary care with a small amount of subsidy for low income workers from the state government.

2.Target population and eligibility criteria

As the proposed scheme is a voluntary scheme, the benefit may be made available to all workers in informal establishments. However, certain criteria for determining eligibility for government subsidy may be followed. The criteria might be:

- 1 An worker whose family income falls below the maximum limit fixed by the government and
2. worker whose family does not have an earning member in the formal sector.

3.Unit of enrollment

Family is the unit of enrollment. Average size of family in Delhi may be considered for a family unit

4. Benefits covered

Two types of insurance may be included ; one for outpatient care and the other for inpatient care. All types of inpatient and outpatient services including MCH services, injury and accidents may be covered. However, treatment of low probability high cost treatment and STD related diseases may be excluded.

5. Premium

Premium may be set in accordance with the average cost of providing all outpatient and inpatients services at a public hospital. Different premium may be fixed for different insurance coverage.

6. Premium collection

Premiums may be collected through government owned hospitals, authorized banks, or post offices. For availing the government subsidy beneficiaries may be required to produce their identity card revealing their economic class. They may also be required to show their electoral identity card and family ration card while joining the scheme

7. Government subsidy

This scheme being a voluntary health insurance scheme for workers in informal sector, a part of contribution of the low income group may be subsidized by the government. Without government the coverage can not be extended to low income class.

8. Limit on benefit

To control the problem of moral hazard, maximum number of visits per year per family may be allowed.

9. Co-payment

To control cost of care, ceiling on cost for each episode will be required. If the cost exceeds the set limit then the family may bear a certain portion of the

exceeded cost. Co-payment may be determined depending on the financial viability of the scheme.

10. Provision of health care

Unlike rural health insurance, the referral system in urban areas is not effective due to lack of primary health care facilities. Majority of illness episodes require outpatient visits. The existing facilities in public hospitals will not meet the growing demand for such care. Moreover, public health facilities are criticized as being overcrowded with outpatients. Therefore a public private mix provision is considered more feasible. As, the public health facilities are not easily accessible for majority of urban population a public private network, which brings private hospitals and clinics in provider network of health system is suggested. Under this system insured may be required to register with the nearest health provider.

11. Provider payment mechanism

At the state level, there is a committee/board, may be set up to manage the insurance fund. The insurance committee / board may invite private hospitals to join the provider network under certain stipulated conditions. If the hospitals satisfy all conditions and agree with the guidelines for rates and other requirements for quality care, then they may be incorporated in the network. The providers can be paid a capitation fee or a single flat rate separately for outpatients and inpatients for providing services for one year. However, for special cases leading to higher cost may be reimbursed prospectively. This requires collection of details about number of cases treated by type of illness, cost of treatment in different facilities.

12. Administration and management

The scheme may be administered by the board of members at the Ministry of Health and Family Welfare (MOHFW) of the state government. This board may control the insurance fund. It will receive the premium and subsidy for low income group from the state government. and will allocate the fund to various health care providers, keeping a small part for administration purposes. Under the scheme the executive members of the board may be given complete authority over any policy matters regarding the functioning of the

scheme. A certain level of independence may be maintained between insurance fund and the government.

Tasks involved for implementation

The implementation of the proposed scheme involves a number of tasks. The most important tasks are discussed below :

1. Identification of low income workers

The most important tasks for the government in implementing a voluntary health insurance scheme for informal sector is the identification of the low income households for government subsidy. Even though a number of welfare schemes have been implemented for the poor as a part of poverty alleviation programs in India, there is however, no foolproof measure available for the identification of low income groups and as a result the benefits of most of the programs could not percolate to the real poor. Many methods have been followed to identify the poor families such as by per capita income, per capita consumption expenditure and so on. However, all of these measures have been found inappropriate due to practical difficulties involved in the estimation procedure.

Application of proxy variables

In order to determine the economic class of the family, a proxy variable estimate is suggested. The proxy variables can be decided in such a way that they may directly affect the family's economic status. Household income, number of earning members, education of the head of family, savings, ownership of property such as house, land and other durable items can be used as proxy variables for determining the economic status of a household. The households can be grouped into poor and others according to the visible presence of such proxy variables. All households can be provided with an identity card, which may reveal the economic class which they belong.

Survey of households

The identification of households into different economic class requires a comprehensive household survey. During the survey all kind of socio-economic

information of households may be collected. It is proposed that based on the proxy variables collected from each household it becomes easy to identify them into various socio-economic groups. The task of identifying and determining the economic class of the households might be entrusted to a separate administrative machinery of the government. The proxy variables and cut off points to determine a household's economic status as poor, medium and general class may be based on findings of research studies and through expert opinion. Household survey may be conducted at least once in three years to review the economic status of households,

2 Estimation of premium

The results of ATP and WTP measurement in the study revealed that 42 percent of the sample households have the ability to pay for health care whereas 41.33 percent have the willingness to pay. However, these figures are slightly higher when individual variable is used as a criterion for measurement. For example, when monthly income is taken as criterion for measurement of ATP, 45.33 percent of households are found to have ability to pay. Similarly, when education is used as criterion for measurement of WTP, 58 percent of the households are found to have willingness to pay for health care. These results imply that a majority of manual workers in informal sector have low ability and willingness to pay for health care. Therefore the premium may be fixed separately for different economic classes or the same premium with different level of state subsidy to different group. In other words, more subsidy to poor income group, low or no subsidy for other group. However, the premium fixation for the scheme might be in accordance with the affordability of the households engaged in informal sector. The estimation of the premium requires many information such as morbidity prevalence and utilization rate by different economic classes, cost of treatment for various health problems (both inpatient and outpatient care), etc. It also requires information on the costs involved in administration and management of the proposed scheme. A method of premium estimation based on expected total cost of health care and probability of being sick by the insured population is illustrated here. A certain portion of the premium may include the cost of administration and management. However, the cost of administration and management is not considered in the following premium estimation procedure.

Let $j = 1, 2, 3, 4, 5, \dots, h$ (h possible health states)

- 1 = mild sickness requiring a small outpatient care
- 2 = moderate sickness requiring a medium outpatient care
- 3 = long term sickness requiring long term outpatient care
- 4 = sickness requiring mild inpatient care or hospitalization
- 5 = sickness requiring moderate inpatient care
- 6 = sickness requiring long term inpatient care
- 7 = heavy surgery etc.

C_j = cost of treatment in the event of j states occurring

The expected value of total cost of treatment = $\sum_{j=1}^h P_j C_j \dots\dots\dots (1)$

where P_j = probability of occurring state j

If n = number of insured population falling ill during a particular period then, the expected total cost of health care for all insured population

$$= n \sum_{j=1}^h P_j C_j \quad (\text{where } j = 1, 2, 3 \dots\dots h) \dots\dots\dots (2)$$

If N = number of population taking insurance, then the average value of premium

$$= \frac{n}{N} \sum_{j=1}^h P_j C_j \dots\dots\dots (3)$$

i) If subsidy applies to all, then the premium charged from the insured will be equal to

$$\frac{n}{N} \sum_{j=1}^h P_j C_j - \alpha \dots\dots\dots (4)$$

where α = per capita subsidy by the government

ii) A case of cross subsidy from rich to poor

Suppose $\theta.N$ number of people are identified as low income by the government and if the government subsidize this group by charging Rs. x premium and Rs. y from other group. ($y > x$)

$$\text{then, } y = \frac{\frac{n}{N} \sum_{j=1}^h P_j C_j - \theta \cdot Nx}{(1 - \theta) \cdot N} \dots \dots \dots (5)$$

$$x = \frac{\frac{n}{N} \sum_{j=1}^h P_j C_j}{\theta \cdot N} - \alpha \dots \dots \dots (6)$$

where α = subsidy for poor

iii) Risk pooling (if the government bears the subsidy of the poor)

$$y = \frac{n_1 \left(\frac{n}{N} \sum_{j=1}^h P_j C_j \right)}{(1 - \theta) \cdot N} \dots \dots \dots (7)$$

$$x = \frac{n_2 \left(\frac{n}{N} \sum_{j=1}^h P_j C_j \right)}{\theta \cdot N} - \alpha \dots \dots \dots (8)$$

where n_1 = number of rich people fall sick during a given period

n_2 = number of poor people fall sick

Total subsidy of government budget = $\alpha \cdot n_2$

3 Health care providers and provider payment mechanism

As already mentioned, the existing public health facilities may not meet the demand for insured population, the role of private sector including NGO's trusts, charity hospitals and other private for profit hospitals in the provision of health care for the insured population is inevitable. The government can contract with private non profit and for profit hospitals, dispensaries and clinics for service provision. This can be done in two ways both direct and indirect

methods. Under direct method the government can directly contract with providers in each locality to provide services to the insured population in the adjoining areas. The indirect method is by creation of provider network through main contractors. Under the former method there may arise the problem of access to care as the insured has to avail health care only from the selected contractors.

A model of contracting out through provider network

The provider network system may help to improve accessibility to health facilities. Under this system, the main contractor may establish group of facilities to provide care for the insured. Such group of facilities can be called provider network.

Under the network system the insurance fund collects premium from the insured and subsidy amount from the government. (contributions from the employers, employees and government in the case of compulsory health insurance scheme). The insurance fund may be viewed as a broker and it may have the following roles.

- structure the coverage of the scheme
- contracting with the consumers and providers regarding the rules of participation
- management of the enrollment process
- collection of contributions from the insured, and arranging payment to providers and
- organizing the risk sharing fund.

The main contractor preferably be a large public hospital. There can be two types of sub contracts between main contractors and providers. This can be called direct and indirect sub contracts. The relationship between main contractor and providers is indirect when the main contractor contracts with a network and then the network subcontracts with providers.

The providers are made up of first level care (urban health centers, clinics/polyclinics), second level care (small hospitals), and third level care (general hospitals). For inpatient care, patients may be allowed to seek care from any providers in the network except general hospitals. For secondary and tertiary care patients can be referred from lower to higher level care within the

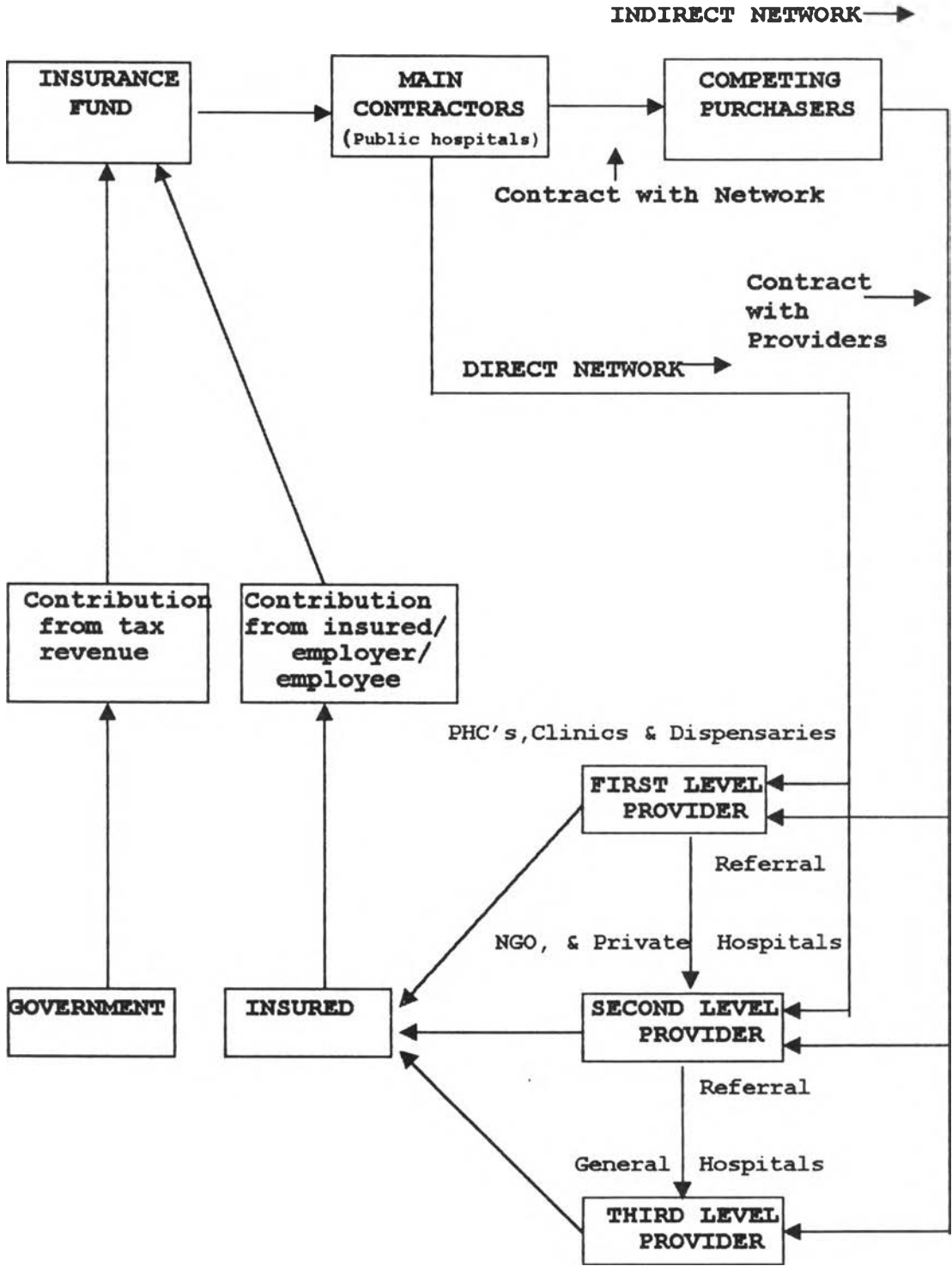
sub network. Every facility are required to deposit certain amount of money with the network to guarantee the provision of care.

In the direct subcontract the main contractor acts as a provider as well as a purchaser. The first and second level providers act the same as in the direct net work but there is no third level care because the main contractor can act as the third level provider itself. There is choice of provider for first and second level care in both direct and indirect subcontracts. There can also be the characteristics of the profit incentive. To acquire more profits, the networks will have to control costs, and ensure quality of products and services to satisfy and attract more insured to the network.

Payment mechanism in the network

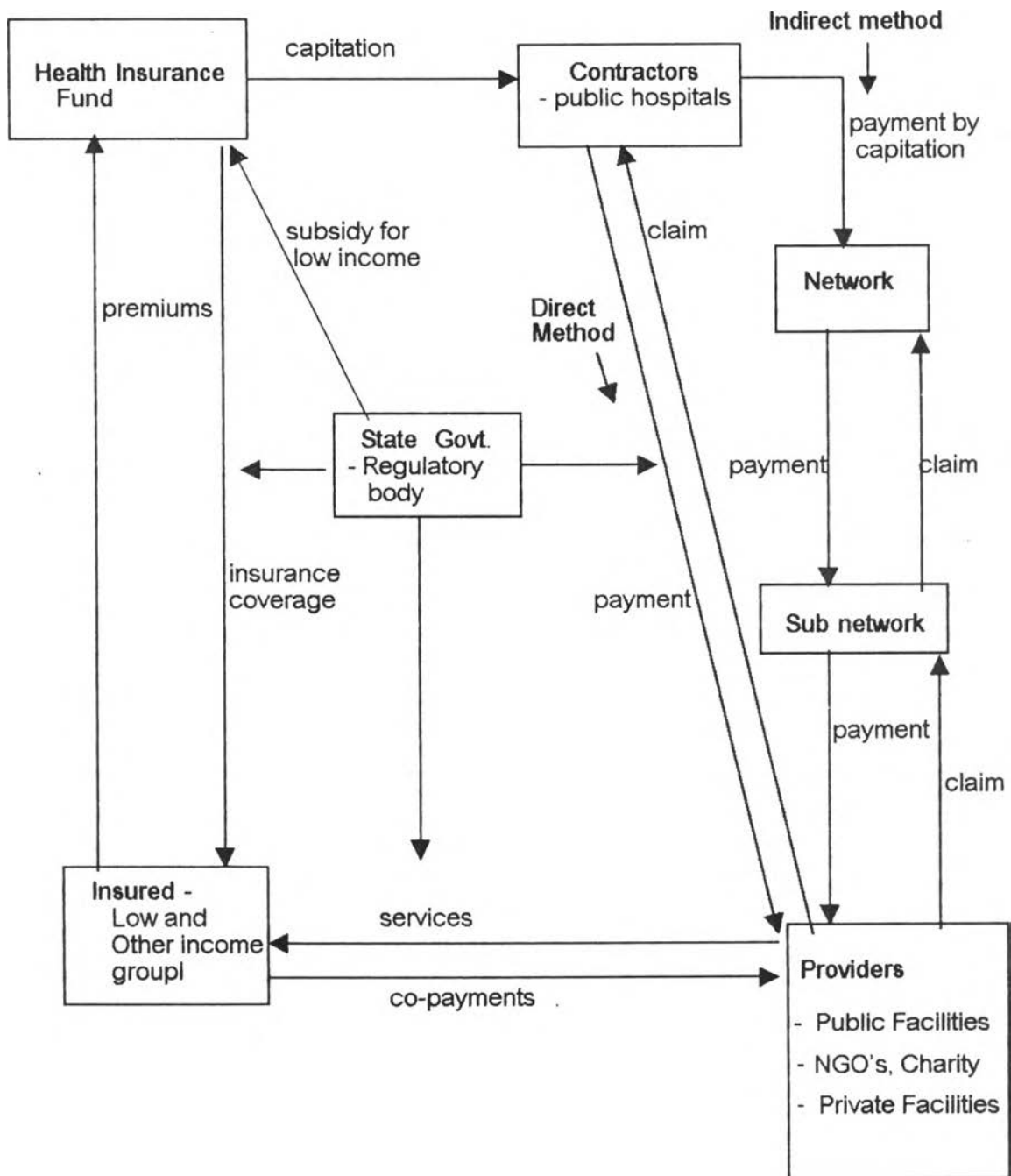
The capitation payment can be paid annually from insurance fund to the net work through main contractor. There are two payment bases can be applied in the network. Fee for service system and capitation. Fee for service can be applied to all providers during the year. Capitation payment can be applied to the subcontractor by considering the number of outpatient visits in the year. In the case of fee for service there should be a guide line for rates which is both disease and procedure oriented for inpatient charge applying to small hospitals and general hospitals. Similarly for outpatient care a guide line for maximum charge should be fixed . A monthly report of the fees and details of services will be sent from every provider to the network and the fee will be paid according to the number of outpatient care to every sub network and then paid to polyclinics / clinics in each sub network subsequently. The fee for inpatients will be paid to small hospitals through the sub network and it can be paid directly to general hospitals. Payment by capitation can also be applied for health facilities. For the capitation the facility will take the risk and for standard fee payment the sub network will take the risk.

Figure . 3 A Model of Provider Network



Source : Modified from OECD, 1992. The Reform of Health Care : A Comparison Analysis of Seven OECD Countries, OECD, France. P.23.

Figure 4 : A Model of the proposed Voluntary Health Insurance Scheme for Informal Sector



5.4.2 Design of an Employer Contributory Scheme

1.Objectives

The objective of this scheme is to provide all types of inpatient and outpatient services to workers and their family members in urban informal establishments through contributions from employers, employees and government.

2.Target population and eligibility criteria

Workers in informal establishments employing less than 10 and whose monthly wage do not exceed the maximum limit set by the government. However, workers whose family consist of an earning member in the formal sector and is already contributing to any health insurance scheme may be excluded.

3.Unit of Enrollment

Household may be considered as the unit of enrollment. This may help to reduce the problem of adverse selection. Average size of household in Delhi may be considered for a family unit.

4.Services covered

All types of outpatient services including MCH services and inpatient services may be covered. Injury and accidents may be included but low probability high cost treatments and STD related diseases may be excluded. Exclusion of such services may help to promote the health awareness as well as the prevention of some diseases among population.

5.Premium fixation

Premium is wage related. Employers and employees may contribute a minimum proportion of employee's monthly wages. However, employers might contribute two times that of employees. All registered establishments not covered under ESIS and employing less than 10 workers may be covered under the scheme. However, it may be voluntary for small employers and

certain portion of the total contribution by both employees in such cases may be subsidized by the government.

6.Premium Collection

Employers may pay the total contribution (of both employer and employee) to the society by the end of every month or quarterly as decided by the society. The defaulters may be fined and in the case of large arrears legal action may be taken under the provision of law.

7.Government subsidy

The state may subsidize a part of the total medical expenditure of the scheme. In the case of workers whose incomes are less than the minimum (as recommended under the minimum wages act), the government may subsidize certain part of the contribution.

8.Co-payment

As this scheme is a contributory scheme by employers, employees and government, the co-payment may not be advisable in all cases. However, in order to control cost of medical care under the scheme, the government may fix a maximum cost limit for the treatment and may co-payment in case where the treatment cost exceeds the set limit.

9.Limit on benefit

To control the problem of moral hazard, a maximum number of visits for each family per year particularly, inpatient visits may be fixed.

10.Health care providers

All types of health care providers such as public hospitals, NGO's, charity run hospitals and private hospitals which satisfy all the conditions laid down by the society regarding provision and quality of care may be considered for health care provision under the scheme.

11. Provider payment mechanism

Case payment / flat rate may be selected for paying providers. These payment mechanisms are simple and easy to operate especially for outpatient care. For fixing a flat rate requires an estimation of average cost of treatment for both inpatients and outpatients care of all facilities. Payment on capitation basis may also be applied. These payment mechanisms are considered efficient and is easy to operate. Moreover, the administrative cost of these system are very low, when compared with other system.

12. Administration and management

A health insurance society is a government body which may be set up exclusively to look after the health insurance arrangements for workers in informal sector. Each zone may have a society which will be responsible for registering all informal establishments in its jurisdiction. Each society will be administered by a director and other officials from the state government . Each society will have an insurance committee consists of director, representatives from employers association, trade union, medical profession and member of state legislature. The committee will have certain power regarding fixation of premium, benefit package and deciding provider payment mechanism etc. The overall administration of societies may be entrusted with a medical insurance board comprising of representatives from the ministry of health and family welfare and ministry of labour of the state government. The board may be responsible for all major policy decisions regarding the scheme. There might also be a need for coordination between MOHFW and ministry of labour.

Tasks involved for implementation

1.State legislation

The government may enact a legislation to bring all major informal establishments under the purview of an act with the aim to provide medical coverage to workers. At present there is no administrative machinery exists at state level to identify the establishments employing less than 10 workers. It is therefore a formidable task to identify and register them under health insurance societies act. In this context, a new method of identification based on visible proxy variables is suggested.

2. Identification of establishments using proxy variables

Government may apply selected proxy variables to identify the establishments in for insurance coverage. Identification of establishments based on proxy variables not only help to avoid the loopholes in the existing system but also bring more employers who have the ability to contribute to the health care of their employees.

The possible proxy variables might be :

1. number of workers in the establishments who are working for more than certain period of time, say, two years.
2. initial capital investment of establishments
3. average monthly/annual turnover of establishments
4. wage structure in the establishments
5. type of activities being carried out such as manufacturing, trading or services etc.

These proxy variables might be identified by visiting the premises, as well as by interviewing both employers and employees. The cross check of information provided by both employers and employees would help to collect reliable data. If there exists the visible presence of proxy variables, then the unit may be identified for registration under the societies act. The cut off lines or points for all the variables might be fixed on the basis of certain agreed guidelines or expert opinion.

3 Premium fixation

As mentioned earlier, under the existing scheme for industrial workers (ESIS) employees contributes 2.25 percent of monthly wage bill, while employer contributes 5 percent and the state government shares one-eighth of the expenditure of the medical care. However, the ESI scheme is a multi dimensional social security scheme which provides both cash and medical benefits. Under the scheme about 40 percent of the total contributions cover the expenditure on medical care. The proposed scheme may cover only the medical care of the insured and the family members. Therefore it may not be required to collect a contribution at par with the existing scheme. The

contribution from employers and employees may be fixed on the basis of expected total cost of medical care of the insured population.

4. Health care providers and payment mechanism

The health care providers under the scheme might be either of the following ways:

1. Direct contract with hospitals owned by state governments, central governments and non profit hospitals such as NGO, charity and other private hospitals
2. Creation of providers network as illustrated under the first scheme. Prospective payment methods particularly capitation may be used for paying providers as the method generate better financial incentives for the control of health expenditures than do retrospective reimbursement scheme.

Table 5.2 : A Comparison of the Proposed Health Insurance Schemes for the Informal sector in Delhi

Components	Voluntary Scheme	Employer Contributory Scheme
Target population	All workers in informal establishments	All workers who have employers (permanent/ temporary) and whose wage falls below the set limit by the government.
Exclusion criteria	Applicable for government subsidy -If monthly income exceeds the set limit (identified as non poor) -If the household has an earning member in the formal sector	If the monthly wage exceeds the set limit by the government
Unit of enrolment	Household	Household
Services covered	Separate coverage for outpatient and inpatient care	Both outpatient and inpatient care are included
Premium setting	Separate premium for outpatient and inpatient coverage	One premium
Premium collection	Public hospitals, banks or post offices	Pay to insurance societies by employers
Government subsidy	State government may provide subsidy for low income class	State government may subsidize a part of total medical expenditure of the scheme. Government may also provide subsidy to contribution of very low wage earners.
Co-payment	For extra visits and if costs exceeds the set limit by the government	Co-payment may be fixed in case of cost exceed the set limit
Limit on benefit	Maximum number of visits per year may be fixed	Same
Health Care providers	1.Direct contract to hospitals 2.Public private network	Same
Provider payment mechanism	Capitation /case payment / flat rate	Same
Administration & management	Medical insurance board at the ministry of health and family welfare of state government	Local management by health insurance societies and the over all control by the medical insurance board