

# Functioning of Community Health Centres (CHCs)

## The Scheme

Our health policy envisages a three tier structure comprising the primary, secondary and tertiary health care facilities to bring health care services within the reach of the people. The primary tier is designed to have three types of health care institutions, namely, a Sub-Centre (SC) for a population of 3000-5000, a Primary Health Centre (PHC) for 20000 to 30000 people and a Community Health Centre (CHC) as referral centre for every four PHCs covering a population of 80,000 to 1.2 lakh. The district hospitals were to function as the secondary tier for the rural health care, and as the primary tier for the urban population. The tertiary health care was to be provided by health care institutions in urban areas which are well equipped with sophisticated diagnostic and investigative facilities.

In pursuance of this policy, a vast network of health care institutions has been created, both in rural and urban areas, and substantial resources, though inadequate vis-a-vis requirement, have gone into planning and implementing the health and family welfare programmes. Increased availability and utilisation of health care services have resulted in a general improvement of the health status of our population, as is reflected in the increased life expectancy and marked decline in birth and mortality rates over the last fifty years. However, these achievements are uneven, with marked disparities across states and districts, and between urban and rural people.

These disparities in the health outcome could be attributed to a large extent, to the differential access to health services by different segments of the population. While the demand side factors do play a role in exercising the choice of the modes of delivery of health care services, for the vast majority of our people, the access to health care services is determined primarily by the availability (and the quality of delivery) of public health institutions. This is especially true of the majority of the rural people, for whom alternatives to the public health services hardly exist.

In fact, the Fifth Five Year Plan document noted with concern the disparities in access to health services between urban and rural areas and the tardy implementation of the schemes in the health sector. The primary rural health care services were brought under the

Minimum Needs Programme (MNP) during the Fifth Plan (1974-79). It was decided to integrate and strengthen the rural health care institutions through suitable organic and functional linkages between the different tiers of the primary health care system.

In this framework, the Community Health Centre (CHC), the third tier of the network of rural health care units, was required to act primarily as a referral centre (for the neighbouring PHCs, usually 4 in number) for the patients requiring specialised treatment in the areas of medicine, surgery, paediatrics and gynaecology. The objective was two-fold; to make modern health care services accessible to the rural people and to ease the overcrowding of the district hospitals. To enable the CHCs to contribute towards meeting the intended objectives, these were designed to be equipped with: four specialists in the areas of medicine, surgery, paediatrics and gynaecology; 30 beds for indoor patients; operation theatre, labour room, X-ray machine, pathological laboratory, standby generator etc. along with the complementary medical and para medical staff.

### **Evaluation Study**

At the instance of Planning Commission, the Programme Evaluation Organisation undertook the study to evaluate the functioning of the Community Health Centres (CHCs) and their effectiveness in bringing specialised health care within the reach of rural people.

The study was also required to address some specific issues as identified by the Health Division of Planning Commission in consultation with the Department of Health and Family Welfare. These, inter alia, include: assessment of (a) appropriateness of the existing population norms and location of CHCs in the context of improving accessibility to the rural people, (b) the availability and adequacy of medical, para-medical and supportive staff in CHCs, (c) availability and functionality of health care infrastructure, including investigative facilities and medicines (d) utilisation of CHCs and identification of constraints to utilisation and (e) the role of CHCs in Family Welfare and National Health Programme. The study was also designed to identify the factors that could contribute to smooth functioning of CHCs as referral centres.

### **Methodology**

Both secondary and primary data had to be analysed to test the various hypotheses relating to the above mentioned objectives of the study. While the information available in published sources was obtained and used wherever necessary, the major part of the data required for the study was generated through a sample survey. Thus, some state and some district level statistics on health care infrastructure and health indicators were obtained from published documents, but the health care institution (CHC/PHC) specific information and

household level data had to be generated through collection of micro level information by the field units of PEO.

A multi-stage sample design was adopted for the study. The sample units at different stages are: States, Districts, CHCs, PHCs, Patients and Non-patients. The first stage sample units are the eight states selected purposively to represent 'good and 'poor' health status of the population. The infant mortality rate was used as a stratifying parameter. Four States viz; Madhya Pradesh, Uttar Pradesh, Rajasthan and Orissa having IMR higher than the national average and another four viz; Tamil Nadu, Maharashtra, Bihar and Haryana with IMR less than or equal to national average were chosen for the study. Two districts -one with low and the other with high IMR, were selected from each state at the second stage of sampling. In the third stage, two CHCs -one near and the other away from the district hospital(s) were selected for each selected district. Two PHCs under the coverage of a CHC and eight patients (four indoor and four outdoor) were selected in the fourth stage of sampling. Finally, three villages-one near a PHC/ CHC and two located beyond a distance of 10 km. were selected from among the villages covered by the selected CHCs/ PHCs for selection of five non-patient households from each such village.

Following the above sample design, 224 patients, 155 non-patients households, 62 PHCs and 31 CHCs spread over the 16 sample districts of eight states were selected for the study. In each selected village the views of knowledgeable persons were also taken for preparation of qualitative notes regarding the functioning of health care institutions.

### **Population Coverage & Location of CHCs**

At the all India level, a sub-centre covered 4737 people, a PHC 28768 and a CHC covered 2.6 lakh people in 1996. Thus, on an average, the population coverage of sub-centres and PHCs is well within the norms prescribed, though there do exist variations across states and districts. In the case of CHCs, however, the population coverage is more than twice the upper limit (1.2 lakh) prescribed in the norm. On an average, there are 9 PHCs for every CHC at the all- India level.

In the eight states under study, the population coverage of a CHC varied from a minimum of 1.3 lakh people in Rajasthan to a maximum of 5.1 lakh in Bihar. Similarly, the average number of PHCs covered by a CHC ranges between 6 in Maharashtra and about 20 in Tamil Nadu. The range between the minimum and maximum population coverage becomes even larger in the case of the districts selected for the study. The coverage varied between 27,000 in Jaisalmer (Rajasthan) and 10.4 lakh in Siwan (Bihar). Similarly, the number of PHCs per CHC in the sample districts varied between a low of 4 PHCs in Katihar

(Bihar) to a high of 30 in Tirunelveli (Tamil Nadu). In the case of Hardoi (Uttar Pradesh) the number is as high as 70 PHCs for one CHC.

Obviously, the requisite number of CHCs as per norms have not yet been established. Perhaps, it is also not possible to meet the demand for CHCs in near future, as the supply gap is quite large and resources are limited. Since resources are scarce, a set of criteria must be evolved for their optimal use. This issue of optimal use of resources has assumed added importance in view of the observation of the Planning Commission (Approach Paper, Ninth Plan) that thin spread of resources over a larger number of schemes without proper financial planning has adversely affected implementation, delivery systems and hence performance in the social sector.

To decide on the criteria for optimal use of resources, it is necessary to have knowledge of the factors that influence the utilization of services of CHCs. An attempt is made in this report to identify such factors through analysis of grassroots level information. These factors in the case of a CHC can be grouped into three, viz; location-related, infrastructure-related and those concerned with resource use. Since utilization is influenced by a large number of factors, it is difficult to empirically establish the degree of influence of each factor without using a multivariate analysis.

Accordingly, a multi-variable econometric analysis has been carried out to bring out the role of location- related factors, holding other explanatory factors constant. This analysis clearly brings out that apart from the population norm, the other location-related factors that have a bearing on the utilization rate of the services of CHC are : the geographical area coverage and the distribution of PHCs around a CHC. The econometric analysis also brought out clearly that availability of doctors, particularly the specialists (given other factors) is the most important determinant of utilization of services of the public health care institutions. The issues relating to infrastructure and availability of doctors are dealt with in details in Chapters 4 and 5 of the report.

### **Health Infrastructure - Availability & Adequacy**

As the CHCs are required to deliver specialised health care services, it was decided to equip these institutions with suitable diagnostic and investigative facilities. As noted earlier, in addition to the usual staff and facilities, four medical specialists and other complementary para medical staff and facilities, such as, operation theatre, labour room, pathology laboratory, X-ray machine, refrigerator, generator, etc., were prescribed by the Central Government to enable CHCs to deliver specialised health care services to rural people.

A comparison of the availability of staff and facilities in the 31 sample CHCs with their prescribed norms shows wide gaps for the majority of the CHCs. In fact, most of them are not equipped to deliver the intended specialised health care services. In particular, the following inadequacies were observed (details in Chapter 4):

- some CHCs have been sanctioned without sanctioning all the posts of specialists;
- only 30 per cent of (the required posts) the specialists were found to be in position. More than 70 per cent of the sample CHCs are running either with one specialist (42%) or without any specialist (29%);
- the extent of shortfall in para medical staff is found to be 12 per cent for NMWs, 16 per cent for Dressers and 39 per cent for Radiographers. At the aggregate level, pharmacists and laboratory technicians are found to be in excess of requirement;
- Out of 31 sample CHCs, operation theatres and labour rooms were not available in 5, pathology laboratories in 12, safe drinking water in 9, ECG machines in 23, X-ray machines in 12 and generators in 23 CHCs;
- what is more striking is the mis-match between the medical specialists and equipments/ facilities/ staff of CHCs. For example, only 6 sample CHCs had Surgeons with the essential complementary facilities comprising X-ray machines with Radiographers, pathology laboratories with lab-technicians and operation theatres, while 8 CHCs had Surgeons, 26 had operation theatres, 19 pathology laboratories, 26 CHCs had 42 lab-technicians, 19 CHCs had 20 X-ray machines, 18 CHCs had 19 Radiographers etc. Similar mis-match is also noticed in the case of other specialists (see Text, Chapter 4).

All this tends to suggest that not only there is an acute shortage of medical specialists, but there is also a mis-match of facilities and specialists in a majority of CHCs, implying sub-optimal utilization and thin spread of available resources.

### **Utilization of Services**

Among the sample CHCs only two - one CHC each in Orissa (with 1907 cases) and Tamil Nadu (1084) during 1995-96 were found to have been used as referral centres to some extent. Eleven (11) CHCs have not attended to any referral cases, while the remaining 18 have been used sub-optimally with an average of 206 cases per year.

An attempt has been made in the study to identify the factors that explain the variation in the utilization of services across sample CHCs. Given the location and the coverage of area and population, the utilization rate depends on the ability of CHCs to deliver the complete package of services for specialised treatment. Variations in the availability of specialists, para-medical staff, facilities for medical investigation, physical infrastructure and the complementarity among these inputs are found to be responsible for differential utilization rates across CHCs.

The above findings, however, should not lead one to conclude that the services of CHCs were not used at all. In fact, all the sample CHCs were found functioning more like PHCs and attended to a large number of routine/direct cases.

### **Beneficiaries' Views**

An analysis of the views of the beneficiaries of the rural primary health care institutions revealed that about 57 per cent of them were either dissatisfied or partially satisfied with the quality of services delivered through sample CHCs. The reasons for dissatisfaction stem from the inadequacies of the delivery system (already noted). Some of the major reasons for dissatisfaction are: non-availability of doctors, indifferent and non-sympathetic attitudes of doctors and para medical staff and non-availability of prescribed medicines.

Of about 62 per cent of the total number of selected beneficiaries of sample CHCs, 76.8 per cent of the indoor patients and 54.8 per cent of the outdoor patients had spent money on getting treatment from CHCs. About 80 per cent of the expenditure of both indoor and outdoor patients was on medicines. Twenty eight (28) per cent of the indoor and 6 per cent of the outdoor patients had to spend more than Rs. 500 on each illness episode.

It is interesting to note, however, that a large majority of the beneficiaries did not think that such expenses were a major constraint to the utilisation of the services intended to be delivered through these CHCs. On the contrary, most of them (91%) expressed their preference for the public health institutions vis-à-vis other alternatives.

### **Suggestions**

The evaluation study clearly brings out the fact that CHCs have not been able to render specialised health care services for which these were established. The constraints to utilisation of their services as identified are the inadequacies in infrastructure, non-availability of medical specialists and para medical staff and non-functional complementary

facilities. Notwithstanding these constraints and sub-optimal utilisation, the majority of the beneficiaries expressed their preference for the services of public health care institutions to those of other alternatives. For improvement in access to public health care services, the following measures can be suggested:

1. As only 43% of the required number of CHCs have been established (by June 1996), a significant increase in the allocation of plan resources for the health sector is needed to close the supply gap. It seems unlikely that the resources required for closing the gap will be available from budgetary provisions alone. Alternative sources of funds and /or alternative modes of delivery of health care services need to be explored to meet the demand for specialised health care services in the rural areas.
2. As the effective utilisation of a CHC as a referral centre depends on its ability to provide the complete package of services required for specialised health care, efficient utilisation of available resources warrants its use in closing the supply gap in infrastructure and manpower of the existing CHCs. The complementarity of facilities and manpower of health care institutions should get primacy over other considerations in allocation of resources, as thin spread of resources over a large number of health care institutions has led to sub-optimal utilisation of facilities created. It is advisable to make in each district a few CHCs fully equipped with all complementary facilities and manpower to discharge the intended functions of CHCs and disseminate the information about their functionality among the villages of the district through PRIs so that the people in the district can take full advantage of these well-equipped CHCs.
3. The monitoring of the functioning of CHCs and removal of constraints to utilisation are important issues that need to be addressed for improvement in access to health care services. Non-availability of doctors (in position) for consultation and non-functionality of existing equipments have been noted in CHCs which are otherwise equipped to deliver the intended services (refer paras 5.5.1 (f) and (g), 5.5.2 and 5.8.2 in text). Perhaps, the routinised departmental monitoring can be supplemented by a Monitoring Committee (at the district level) comprising the CMO/DHO and representatives of the Panchayati Raj Institutions.
4. There is an urgent need for setting up of a Technical Committee to go into some basic issues relating to the operational aspects of the rural health care institutions. The terms of reference of the Committee should inter alia, include:
  - Review the existing guidelines (framed during Fifth/Sixth Plan) in the light of the advances made in medical sciences, change in health and demographic

scenario, appearance of new emerging and re-emerging health problems like, HIV, Plague, Dengue, Hepatitis, Japanese encephalitis, etc, and the performance as revealed in the PEO evaluation study.

- Review the existing norms for establishment of PHCs/CHCs in view of the findings that location and geographical area coverage are important determinants of access and utilization of these institutions.
- Suggest ways and means to bridge the gap in the availability of manpower (including unwillingness of doctors to serve rural areas) and complementary infrastructure (e.g. the services of anaesthetists ).

Incidentally, the expert committee on Public Health System constituted under the Chairmanship of Prof. J.S.Bajaj, the then Member, Planning Commission also recommended for the constitution of a Task Force to review the National health Policy in terms of reformation of strategies.