Quality of Service of Primary Health Centres: Insights from a Field Study

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Executive Summary

This paper provides an evaluation of the quality of services and customer orientation of Primary Health Centres (PHCs) against the backdrop of the changed environment in the country with customer focus and efficiency emerging as the cornerstones of economic transactions in private and public sectors alike. It focuses on ten selected PHCs of Uttar Pradesh and covers the following stakeholders:

- Customers including patients who use the health care facilities of PHCs as well as the relatives and their personal attendants.
- Community members covering the village public, local shopkeepers, local government functionaries, local intelligentsia such as teachers and others having an interest or stake in PHC activities.
- Doctors and staff of the PHCs.
- District Medical Officials responsible for controlling and monitoring the PHC activities.

The paper draws, among others, the following conclusions:

- The customers and community members of the villages perceived the facilities and services of PHCs to be deficient in many respects.
- Neither doctors and PHC staff nor the district officials are able to refute adequately the issues raised by villagers about the quality of service of PHCs.
- While villagers do not like the panchayat (local government) coming into the picture for improving the services of PHCs, district officials totally discount privatization as a means for providing effective primary health care in rural areas.

While it is not very easy to solve the primary health care problems of the Indian villagers, yet the policy-makers can take recourse to the following measures to improve the facilities and services of PHCs in future:

- Form village committees to monitor PHC facilities, resources, and services.
- Identify industry patrons/sponsors for each PHC for developing infrastructure, facilities, and logistics without straining the scarce government resources.
- Constitute district-level user committees to monitor not only the PHC activities of a district but also the activities of the District Medical Offices.
- Enable panchayat and district administration to perform monitoring and supporting functions to ensure multiple checks on activities of the PHCs and District Medical Offices.

KEY WORDS

Primary Health Centres
Customer Orientation
Quality of Service
Monitoring and Control
Private Service Providers
Primary Health Centres (PHCs) — particularly those belonging to rural and low-income segments — have been playing an important role in health care in India. Services given by the PHCs are by and large free for a customer. A typical PHC provides such services as consultation, limited clinical tests, immunization, mother and child care (both ante-natal and post-natal), and family planning and sterilization in addition to dispensing medicines including pills, injections, vaccines, drips, etc. The PHCs also have bed facilities for admitting patients who require continuous care of medical staff. The field staff carries out immunization, family planning, and mother and child health care activities and also educate the public falling under the purview of the PHCs on the virtues of hygiene and good health. Since many of the PHCs are located in rural areas having very little access to private health care facilities, the degree of effectiveness of the PHCs often determines the health status of the villages in which the PHCs exist.1

In this paper, we provide an evaluation of the quality of services and customer orientation of the PHCs in India against the backdrop of the changed environment in which customer focus and efficiency are key words for economic transactions in both private and public sectors.2 For this purpose, we present evidence from selected PHCs. These PHCs belong to Uttar Pradesh (UP) which remains one of the socially and economically backward states. We have carefully selected the PHCs to give a true representation of different types of PHCs such as relatively new and old, small and large, independent and controlled by Community Health Centres (CHCs), close to district headquarters and far away from district headquarters, interior (difficult to access) and easily accessible, and so on. The evaluation is based on field surveys that consisted of a structured questionnaire survey as well as interviews with the various stakeholders carried out during a six-month period ending in early 2001 (Box 1).

**APPROACH TO QUALITY OF SERVICE**

We have approached quality of service of the PHCs from two angles: technical and behavioural. The technical aspects of the quality of service of PHCs include:

- technical facilities for diagnosis, operations, and patient care
- technical skills of staff including the level of training and specialization of doctors
- technical procedures such as for registration, diagnosis, operations, and patient care.

The behavioural components of service quality are:

- punctuality and regularity of service
- commitment and motivation of doctors and staff to provide high quality service
- quality of communication between the doctors and the staff and the customers and villagers.

**CHARACTERISTICS OF PHCs**

**Village and PHC Profile**

Box 2 provides a statistical profile of the ten villages in which the sample PHCs are located. Our analysis is based on the information gathered from the village panchayat (local government) officials/pradhans (village head) and the PHC staff who provided the information on the basis of their records and judgement.

**Technical and Operational Aspects of PHCs**

Our sample PHCs have an average of about six technical
staff including doctors in addition to an average of 12 non-technical staff. None or very few of them have X-ray, blood bank, ambulance facilities or office vehicles at their disposal. Half of the PHCs do not have usable in-patient ward or adequate emergency or clinical test facilities. A majority of them do not have labour room facilities. In other words, they have severe technical facility constraints in providing high quality service. Nonetheless, they attempt to provide consulting services, field services, family planning and sterilization facilities as well as free medicines including oral items, injections, drips, etc. Their operational aspects such as number of patients visiting the PHC and the nature of ailments, etc., are given in Box 3.

**Difficulties of PHCs**

By and large, the PHCs having necessary technical skills and facilities do not face serious difficulties in dealing with any type of disease. However, at present, they have to refer serious and complicated cases to the main PHCs, CHCs or other hospitals due to various technical and operational constraints such as absence of specialist doctors, poor availability of beds, inadequacy of staff, and poor or no infrastructure services such as power, telephone, ambulance, etc.

**Box 2: Profile of a PHC Village**

A PHC village is located away from the District Chief Medical Officer's office on an average by 36 km. Each PHC serves an average of 30 villages thus giving a wide coverage to its services and making it a crucial point of rural health care.

The average proportion of children below five years is about 15 per cent while the corresponding proportion of children in the 5-18 years age group is 21 per cent. About 19 per cent are above 50 years of age. Thus, children below five years and villagers above 50 years who form the most vulnerable sections in terms of health problems constitute about one-third of the village population.

On an average, nearly 43 per cent of the villagers are illiterates and about 17 per cent have high school education or more. These people may be able to influence the village opinion for a common cause if they so desired. On an average, 22 per cent are unemployed. Another 12 per cent are agricultural labourers who are generally known in India for their under-employment and lower income levels. Added to this is a farming class (with own land) constituted by 53 per cent of the villagers. Thus, over four-fifth of the villagers are destined to be dependent on the PHCs for their primary health needs either due to their low or no incomes or due to their activities confined to the village boundaries.

About three-fourth of the villagers, on an average, belong to the scheduled castes (SC) and scheduled tribes (ST) or to the backward communities and about a sixth of the villagers are Muslims. These sections, together constituting over nine-tenth of the villagers, generally account for the socio-culturally and economically under-performing population. It underscores the importance of the PHCs in these villages.

The average female population is 48 per cent for whom the PHCs are important especially during pregnancy and childbirth.

**Box 3: Operational Aspects of PHCs**

The average number of patients visiting the PHC comes to about 71 daily (average of the latest week before the survey) and about 481 weekly (average of the latest month before the survey). Each PHC makes on an average about 24 references every week to other PHCs/CHCs and hospitals. Similarly, it also receives a weekly average of about 20 references from other PHCs or clinics.

Each PHC reports a weekly average of 13 cases of gastric ailments, 66 cases of viral fever and meningitis, etc; 23 cases of malaria and TB, and 26 cases of other infectious and contagious diseases. The weekly allergy-related cases average to 24. It also handles every week an average of 34 pregnancy-related cases and 38 cases related to eyes, bone, etc.

**CUSTOMER PERCEPTIONS**

**Frequency of Use of PHC Services**

Seventy-five per cent of the respondents ‘always’ use PHC services while about 5 per cent use them only as an alternative when private services are not available. There are three main factors that affect the choice of PHC services: high cost of private health care services, lack of options, and trust in PHC services when they are available. Over 75 per cent of the respondents suggest high cost of private primary health care service as a reason for preferring the PHC services. About 50-60 per cent of the respondents feel that consultation fees, clinical test charges, and the cost of outside medicines are the high cost elements of private service. For about a third of the respondents, the private services are either not available in their village or available far away from their home. One important finding is that over 85 per cent of the respondents believe that the PHC doctors presently available are good. Also, a little less than half of the respondents do not consider the private health care services as reliable.

**Additional Requirements of Villagers**

The respondents are aware that the PHCs do not have adequate technical facilities for providing certain types of services and hence they recommend that the following facilities be included in addition to the current services: ambulance, emergency facilities, specialist consulting, additional clinical test facilities, good operation facilities, blood bank, and X-ray. Other important requirements are the services of a lady doctor that is not available in the PHCs by design (sometimes the doctor available may be a lady), a good labour room, a good in-patient ward, more medicines, and greater facilities for mother and child health care. Such needs have been suggested for other regions in some earlier studies as well (Goel, 1984).
**New Services at User Charges**

A large part of the respondents have used at least one of the private health services at some point of time (Table 1) and more than half of them are satisfied with them on both technical and behavioural counts. They are receptive to the idea of the PHCs providing, at some user charges, those technical services currently provided by the private health care clinics. Only 12 per cent are non-receptive to the idea. Significantly, a majority of the respondents also feel that the PHCs can give them technical quality in such paid services while behavioural quality needs to be ensured.

However, there is a difference in the perception of the respondents on the worth of services to be provided by the PHCs, in comparison with the private sector. While nearly one-sixth of the respondents suggest that these services are worth as much as that of the private services, just about five per cent say that they are worth nothing. A similar difference in the perception arises on the appropriate user charges to be levied (willingness to pay) on the new services provided by the PHC. Ten per cent of the respondents say that the user charges can be as much as the private charges. About 63 per cent of the respondents are receptive to a user charge of half of the private charges. Only 22.3 per cent of the respondents want it to be less than one-fourth of the private charges.

**IMPROVING PHC SERVICES**

Other areas that needed attention include absenteeism of doctors and staff, lack of improvement in service timings, in the greedy nature of the doctors and staff, and in such matters as irregularity of field visits, neglect by district health officials, and lack of sincerity in promoting awareness in health and hygiene. However, there has been some improvement in different aspects partly due to the efforts of villagers at various levels.

**Villagers’ Efforts to Improve PHC Services**

Two-fifth of the respondents have complained to the doctors and the staff several times about the services that the PHCs deliver. More than half of them have also urged the doctors and the staff to be more user-friendly. A little less than two-third of the respondents say that they have voiced their concern at the panchayat level. Some respondents also commented on the intervention of the local leaders on complaints from villagers. In their effort to improve the quality of the PHC services, they have also urged the doctors and the staff to visit the villages and provide some of the needed services at their doorsteps.

About half of the respondents are aware that the villagers have tried to monitor the activities of the staff and the doctors to find out about any irregularities in their functioning. There are also instances of villagers keeping some local resources at the PHC disposal so as to improve their effectiveness. Besides, more than half of the respondents mention about visits of the village head and other representatives to the PHC for discussing their problems with the doctors and the staff and appraising the district health officials of the unsatisfactory state of affairs at the PHCs.
Despite these measures, the quality of delivery has not improved to the satisfaction of the villagers and hence further action on their part is necessary. However, a majority of the respondents are not satisfied by just raising their hands in protest and tolerating whatever is delivered to them. In fact, about half of the respondents are planning to persuade the doctors and the staff to be more committed and sympathetic so as to ensure at least behavioural quality of service and to exert panchayat level pressure on the district health officials. Over a third of the respondents are thinking of approaching leaders belonging to the ruling party to intervene in improving PHC services on both technical and behavioural counts. However, agitation as a means of improving the PHC services is acceptable only to less than a fifth of the respondents.

The respondents suggest certain specific measures, mostly non-technical, to improve the quality of PHC services:

• ensure availability of full-time doctors
• motivate the doctors and the staff to be more committed and user-friendly
• exercise stronger control and inspection by the Chief Medical Officer
• set up local committees for monitoring.

Interestingly, an overwhelming majority of the respondents did not approve the idea of handing over the responsibility of operating the PHC to the local panchayat as they felt this may lead to deterioration in the quality of PHC services.

**Role of District Level Offices**

Many of the respondents and staff members feel that one major reason for the lack of punctuality and regularity of many doctors in attending to their duties is the failure of district officials in monitoring the PHCs effectively. Although there are claims of weekly inspection of PHCs by district officials, in reality, it is not happening so frequently. There are complaints of irregularities too.

The district officials, on the other hand, claim that they visit most of the PHCs and take remedial actions. However, they feel that not many problems are brought to their notice. Surprisingly, they concur with the adverse observations about PHCs. According to them, there are genuine problems for the doctors and the staff, especially for the former, such as location inconveniences, lack of promotions, delay in payments, lack of public support, etc. Although they are aware of the problems of the villagers, they are unable to solve them completely due to the genuine problems of the doctors and the staff and due to political interference.

**RESPONSES OF DOCTORS AND STAFF**

The most crucial components of primary health service are the doctors and the staff. Therefore, given the availability of favourable technical conditions, the quality of service rendered by PHCs is largely dependent on their approach. Further, the behaviour and approach of the doctors play a large role in conditioning the behaviour and approach of other staff members. Our observations on the doctors and the staff are as follows:

The doctors and the staff are by and large dissatisfied with the distance and accessibility of PHCs from their residence as a typical employee has to travel more than 20 km from his/her residence to reach the workplace and, further, the PHC locations are difficult to approach by public conveyance. They are also dissatisfied because the PHCs face problems of inadequacy of staff, insufficient supplies of medicine, and interference from district officials. Also, they feel that the service environment is not adequately stimulating partly because other members of the staff are often not cooperative. Besides, they are not very happy about serving rural areas.

According to the respondents, poor incentives including delayed disbursal of salary, lack of growth opportunities, delayed or no promotion, and absence of a system for professional development affect their motivation substantially. Besides, the absence of basic facilities like housing and good schools for children too affect their motivation.

The doctors and the staff, however, mention that despite their motivational problems, there is a low rate of complaints from the community that uses the facilities and services, be it regarding corruption or irregularities, punctuality of doctors and staff, behaviour of the staff or availability of medicine. This could be because the customers are tolerant and accommodative. The doctors and the staff are also emphatic that whenever complaints arose, they took whatever measures possible within their abilities to redress grievances. They disagree with the contention that they ignore complaints.

Interestingly, despite the motivational problems, the respondents have rated themselves quite high on commitment. According to them, they are quite keen to serve the customers and would feel satisfied only when...
they are satisfied. They also claim that they have a sense of responsibility to serve the society through their jobs in spite of being in the government service where there is no reward for extra-sincerity.

**INTER-PHC DIFFERENCES**

The methodology used for verifying the presence of inter-PHC variations in such perceptions is given in Box 4.

**Customer and Community Perceptions**

Table 2 presents the computed F-ratios for customers and community members. The following observations emerge from the exhibit:

- The level of perceived cost-based preference for PHC services varies significantly across the PHCs, i.e., customers across the PHCs do not assign the cost factor the same weight.
- Customers do not perceive uniformity in the lack of options in primary health care across all the PHCs.
- There is no uniformity across the PHCs in the level of perceptions that their services are more reliable when they are available.
- Customer satisfaction with various attributes such as their facilities and skills and behaviour of the staff and the doctors differs across PHCs.
- Other aspects on which such inter-PHC differences are visible are level of promptness in services, level of attention given to convenience of the customers, and the cost effectiveness of prescriptions given to customers.
- There are inter-PHC differences also in the perceived contribution of various factors responsible for the recent changes in the quality of PHC services.

Other aspects showing significant variations in perception across PHCs include the following:

- The level of resorting to remedial efforts for improving the services and facilities.
- The level of local initiatives taken in improving or augmenting the services and facilities.
- The level of activism proposed in tackling unsatisfactory quality of PHC services.
- The level of tolerance and persuasion to be shown in dealing with the doctors and the staff.

**Perceptions of Doctors and Staff**

The computed F-ratios for the doctors and the staff are presented in Table 3. It is evident from the exhibit that the personal satisfaction of the doctors and the staff varies significantly across the PHCs. There are also variations in their satisfaction on the work environment across the PHCs. The same is the case with respect to such factors as reward and growth incentives and basic living facilities around the PHCs.

The doctors and the staff have faced different degrees of complaint behaviour of customers across the PHCs. Such differences are perceived in respect of various types of complaints like those on punctuality, the concern of the doctors for patients, the behaviour of the staff, the availability of medicines, and the facilities. The consequences of customers’ complaint behaviour about the deficiencies in their services too differed from one PHC to another.
Inter-correlations

The Pearson’s correlation coefficients computed across the PHCs between the factor groups of perceptions of customers and community members, on the one hand, and the doctors and the staff, on the other, are reported in Exhibits 1, 2, and 3. The interpretation of results leads to some very important observations on the relationship between the perceptions of the doctors and the staff and the quality of PHC services as felt by the customers which are as follows:

- The more the inability of the customers to seek alternative health care facilities due to cost factors, the more the remedial efforts the customers put to improve the services.
- The more severe the lack of options the villagers have, the less the promptness they perceive in the PHC services.
- The less the options the villagers have, the more they show a tendency to tolerate poor services and to use only persuasive means of rectification. On the other hand, the more severe lack of options is associated with the perception of higher greediness that villagers have about doctors and staff across the PHCs.
- Villagers perceive the PHC services as more reliable when there is greater availability of medicines and facilities and when the doctors and the staff behave well.
- The satisfaction of customers is positively related to promptness and convenience of PHC services, availability of medicines and facilities, behaviour of the doctors and the staff, the competence and commitment of doctors, and villagers taking more remedial efforts and local initiatives.

As Exhibit 2 implies, availability of facilities and medicines and the behaviour of the staff change directly with changes in the competence and commitment of the doctors. Also, where local initiatives are more, availability of facilities and medicines and the behaviour of the staff are better.

The greater inability of the villagers in seeking alternative health care facilities on account of cost factors also leads to a greater tendency of the doctors and the staff for inaction on the complaints of villagers on the quality of PHC services. This is clear from Exhibit 3. It is also interesting to find that the lack of options for villagers in health care is associated with poorer availability and performance of PHC facilities. It indicates the realization by the doctors and the staff of the helplessness of villagers. Another important observation is the direct relationship between basic living conditions of the doctors and the staff and the satisfaction of villagers with PHC services. This implies that better living conditions motivate the doctors and the staff to serve villagers better. The villagers’ perception of availability of medicines and facilities and the behaviour of the doctors and the staff is also related positively with the basic living conditions of the doctors and the staff. The latter further influences the villagers’ perception of competence and commitment of the doctors.

A surprising result is that the personal satisfaction of doctors is found to relate positively with the cost-effectiveness of prescriptions. It suggests that doctors care more for the economic conditions of customers when the former is happy.

The results make it clear that one of the aspects villagers use to judge the skills and commitment of the staff is the availability and performance of the facilities. The local resource support that the villagers give to the PHCs is found to move directly with remedial efforts that the villagers put in rectifying deficiencies in their services. Also, the more the villagers complain to the doctors and the staff on various counts, the more they are willing to take local initiatives and put in the remedial efforts. At the same time, the greater tendency of complaints faced by the doctors and the staff exists side by side with the greater tendency of villagers to show tolerance and persuasion as a means of resolving problems in the quality of PHC services.

Table 3: Inter-PHC Differences in Experiences of Doctors and Staff

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Perception Factor</th>
<th>Inter-PHC Difference</th>
<th>F-Ratio</th>
<th>Significance Level (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Personal satisfaction</td>
<td>1.9</td>
<td></td>
<td>10</td>
</tr>
<tr>
<td>2</td>
<td>Workplace satisfaction</td>
<td>3.4</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>Rewards and growth incentives</td>
<td>2.5</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>Basic living facilities</td>
<td>2.7</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>Customer complaint about corruption</td>
<td>1.8</td>
<td></td>
<td>10</td>
</tr>
<tr>
<td>6</td>
<td>Customer complaint about punctuality and doctor’s concern</td>
<td>2.0</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Complaint about staff behaviour and medicines</td>
<td>4.3</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Complaint about facilities</td>
<td>2.5</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>9</td>
<td>Follow up action on complaints</td>
<td>2.4</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>10</td>
<td>Negative or positive consequence on complaints</td>
<td>2.1</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Availability and performance of facilities</td>
<td>5.4</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>
CONCLUSIONS AND RECOMMENDATIONS

The results reveal that the services rendered by PHCs are deficient in many respects in the perception of customers and community members of the villages and that the doctors and the staff are unable to redress adequately the grievances raised by villagers. It may be relevant here to look at the future scenario. The PHCs are not going to provide all the technical facilities needed for villagers in the future too, and are also unlikely to have sufficient infrastructure, service facilities, and other resources in view of the severe financial constraints of the government. So, to improve the quality of PHC services and to ensure their customer orientation, it is essential to improve the utilization of available facilities. For this, the doctors and the staff must be made more committed by changing their attitude and mindset. According to the district level officials, even appointing them at places of their choice will not eliminate the problems related to their motivation and commitment as these will be dependent largely on individual-specific factors such as integrity, sincerity, etc. Therefore, proper training and incentives for the doctors and the staff is the need of the hour.

Further, adequate community support and local participation are necessary in making PHCs’ services effective and people-oriented. While the villagers do not like the panchayat to come into the picture, the district officials discount privatization as a means to ensure effective primary health care in rural areas. According to them, private service providers will also be afflicted in the same manner like the PHCs unless there is effective monitoring and control by authorities. Thus, there are hardly any easy solutions to the problems of villagers regarding their primary health care.

The policy-makers could, however, consider the following multi-pronged strategies for improvement:

1. Empowering communities served by PHCs
2. Augmenting the infrastructure, facilities, and logistics of PHCs
3. Enriching and motivating the doctors and the staff
4. Strengthening the monitoring of PHCs at various levels.

To empower village communities in the PHC context, first, the policy-makers need to launch awareness campaigns in each PHC’s catchment areas. The campaigns should enlighten communities as to what facilities and services the PHC provides, what support they could expect from the doctors and the staff, who are the persons responsible for monitoring the PHC activities at official level, whom to approach if facilities and services are operated inefficiently or if behaviour of the doctors and the staff is unsatisfactory, etc. Secondly, they should set up village committees to work on each of these PHCs. This committee and the local panchayat could independently monitor the PHCs at the local level and be aware of the resource allocation to a PHC including periodic quota of medicines. The village committee will identify deficiencies and suggest improvements and also liaison with district-level user committees and district health authorities for effective redressal of problems.

The government needs to think innovatively to find resources for providing basic infrastructure, facilities, and necessary logistic support to PHCs. One way of supporting them could be through industry patrons/sponsors for each PHC. Given the smaller size and scope of most of them, sponsoring a PHC may not be burdensome to large enterprises. By taking appropriate policy-level initiatives, sufficient interest could be generated among businessmen on charity, philanthropical or tax-saving grounds.

To enrich and motivate the doctors and the staff in particular, initiatives for periodic training in both professional and behavioural/attitudinal aspects need to be taken. The doctors should also be given opportunities to widen their scholastic horizons by funding their research interests, sponsoring them for attending professional conferences, enabling them to subscribe for professional journals, etc. This may lessen their uneasiness regarding limited opportunities for promotion and material gains. Facilitating enrolment of students with rural background in medical degree courses and their subsequent posting to rural areas may help in easing the problem of doctors’ aversion to rural PHCs. While posting the staff too, preference could be given to candidates from around the PHC localities as moral pressure or urge to perform may be exercised better in one’s own locality.

Finally, to ensure effective functioning of PHCs and to reduce corruption, the District Medical Offices (DMOs) should be revamped and properly monitored by the state health authorities. A district-level user committee and the district civil administration can be empowered, independent of each other, to monitor the functioning of DMOs and resource flows into and out of the DMOs. The district-level user committee could coordinate with respective village committees to ensure proper alignment of DMO-PHC operations. The DMOs should also
have effective authority to take disciplinary action against erring doctors and staff on recommendation from village or district user committees.

Figure 1 summarizes the suggestions made above.

Figure 1: Operational Structure for Improving Quality of PHC Services

Exhibit 1: Inter-correlation across PHCs among Response Factors of Customers and Community

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Customer and Community Factors</th>
<th>Correlation r</th>
<th>Significance %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cost of private service</td>
<td>-0.558</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Activism about PHC</td>
<td>0.795</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Lack of options</td>
<td>-0.607</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Staff skills and commitment</td>
<td>-0.562</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Greediness of personnel</td>
<td>0.582</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Tolerance and persuasion</td>
<td>-0.559</td>
<td>10</td>
</tr>
<tr>
<td>3</td>
<td>Reliability of PHC</td>
<td>0.933</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Promptness of service</td>
<td>0.701</td>
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</tr>
<tr>
<td></td>
<td>Convenience</td>
<td>0.595</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Facilities and behaviour</td>
<td>0.811</td>
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</tr>
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<td></td>
<td>Doctor skills and commitment</td>
<td>0.767</td>
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</tr>
<tr>
<td></td>
<td>Local initiatives</td>
<td>0.693</td>
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</tr>
<tr>
<td>4</td>
<td>Specialized facilities</td>
<td>-0.689</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Cost-effective prescription</td>
<td>-0.789</td>
<td>1</td>
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<td>5</td>
<td>Emergency services</td>
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<td></td>
<td>Cost-effective prescription</td>
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<td>Activism about PHC</td>
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<td>Operation services</td>
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<td></td>
<td>Convenience</td>
<td>0.583</td>
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</tr>
<tr>
<td></td>
<td>Remedial efforts</td>
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<td>10</td>
</tr>
<tr>
<td>7</td>
<td>Satisfaction on PHC</td>
<td>0.625</td>
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</table>

Contd.
### Exhibit 2: Inter-correlation across PHCs among Response Factors of Doctors and Staff

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Doctor and Staff Factors</th>
<th>Customer and Community Factors</th>
<th>Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Personal satisfaction</td>
<td>Facilities and behaviour</td>
<td>0.931</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Doctor's skills and commitment</td>
<td>0.832</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Apathy of personnel</td>
<td>-0.591</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Remedial efforts</td>
<td>0.616</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Local initiatives</td>
<td>0.799</td>
</tr>
<tr>
<td>8</td>
<td>Convenience</td>
<td>Doctor's skills and commitment</td>
<td>0.829</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Greediness of personnel</td>
<td>-0.714</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Apathy of personnel</td>
<td>-0.611</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Remedial efforts</td>
<td>0.687</td>
</tr>
<tr>
<td>9</td>
<td>Cost-effective prescription</td>
<td>Staff skills and commitment</td>
<td>0.554</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tolerance and persuasion</td>
<td>0.791</td>
</tr>
<tr>
<td>10</td>
<td>Facilities and behaviour</td>
<td>Doctor's skills and commitment</td>
<td>0.772</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Apathy of personnel</td>
<td>-0.563</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Local initiatives</td>
<td>0.811</td>
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<tr>
<td>11</td>
<td>Doctor skills and commitment</td>
<td>Greediness of personnel</td>
<td>-0.613</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Apathy of personnel</td>
<td>-0.652</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Local initiatives</td>
<td>0.625</td>
</tr>
<tr>
<td>12</td>
<td>Remedial efforts</td>
<td>Local initiatives</td>
<td>0.800</td>
</tr>
</tbody>
</table>

### Exhibit 3: Inter-correlation across PHCs between Response Factors of Customers and Community and Doctors and Staff

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Customer and Community Factors</th>
<th>Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cost of private service</td>
<td>0.565</td>
</tr>
<tr>
<td></td>
<td>Inaction on complaints</td>
<td>0.645</td>
</tr>
<tr>
<td></td>
<td>Consequence of complaints</td>
<td>0.567</td>
</tr>
<tr>
<td>2</td>
<td>Lack of options</td>
<td>-0.725</td>
</tr>
<tr>
<td>3</td>
<td>Reliability of PHC</td>
<td>0.609</td>
</tr>
<tr>
<td>4</td>
<td>Specialized facilities</td>
<td>0.553</td>
</tr>
</tbody>
</table>

Contd.
### ENDNOTES

1. The quality issues in health care failed to receive adequate attention in past research works. To illustrate, only 17 per cent of the papers on health care evaluated in a recent review (Geyndt, 1995) had raised quality issues.

2. WHO (1984) had long back emphasized the importance of survey method in evaluating primary health care.

3. An earlier study on a PHC located near Lucknow in UP was conducted over a decade ago (Banerji, 1990).

4. In an earlier study on the services of a PHC located near Lucknow (Banerji, 1990), the performance of the PHC was found highly unsatisfactory in various respects.

5. As Kotler and Clarke (1987) proposed, most health care organizations want to be responsive to customer needs. So, sooner or later, even a public health care system needs to be customer responsive as is being realized in India now.

6. Under such constraints, a World Bank finding (1992) on the roots of low quality of primary health care could provoke us to expect poor quality from the sample PHCs.

7. Lewis, Sulvietta and La Forgia (1991) find in Dominican Republic the use of lower quality to reduce the cost of providing public health care services. In the present case too, it could hold true. The new services that are required but are presently absent may improve the quality but will add to the public cost of providing primary health care services.

8. It is relevant to refer to the World Bank (1992) finding on the positive relationship between the responsiveness of the health centres to customer needs and the perceived quality of services rendered by them.

9. This view is closer to the World Bank (1992) view that NGOs and user representatives might be involved in the process of priority setting in (primary) health care.

10. It may be relevant to recall a WHO (1994) observation here. It suggests (a) articulating a clear vision of the type of health system and (b) setting priorities within the PHC framework as a means to enhance the effectiveness of primary health care.

### REFERENCES


Kotler, P and Clarke (1987). *Marketing in Health Care Or-
ganizations, Englewood: Prentice-Hall.
“Productivity and Quality of Public Hospital Medical Staff: A Dominican Case Study, International Journal of Health Planning and Management, 6, 287-308.

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All the world’s a stage,
And all the men and women merely players
They have their exits and their entrances;
And one man in his time plays many parts.

William Shakespeare