

User charges in India's health sector: An assessment

Background

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SER CHARGES CAN BE DEFINED AS 'CONTRIBUTIONS TO COSTS BY INDIVIDUAL users in the form of a charge per unit of service consumed, typically in the form of cash' (Reddy and Vandermoortele 1996). Thus, user charges are explicitly distinguished from insurance arrangements that require payment into a pool without reference to a specific service received. They are also to be distinguished from health care financed through general revenues supported by taxation. In the present context, user charges are referred to as being for health services provided in the public sector.

The case for user charges in the health sector has typically been made on three grounds all of which are central to India's health policy objectives: that they have the potential for adding to scarce public resources (and presumably, therefore, quality and coverage), enhancing efficiency and promoting equity.

User fees can raise resources for health by charging for services provided in government-run facilities. The success of such a step will depend on (i) the magnitude of user charges per unit of service provided; and (ii) the responsiveness of service utilization to user charges, often referred to in technical jargon as the price elasticity of utilization.

If the utilization of services in public facilities falls sharply in response to the imposition of user charges (i.e. it has a high price elasticity of health service utilization), the move may not be very successful in raising revenues. Moreover, if the decline in utilization is somehow not made up by a rise in utilization of needed health care services elsewhere, e.g. in the private sector, then the goal of raising resources may have the counterproductive impact of reducing health care consumption and potentially worsening health outcomes. To this one can add a third critical concern. Publicly provided subsidized health care, especially inpatient care in hospitals serves as a device for insuring the population against the financial risk from catastrophic illnesses. Thus, raising finances by means of user charges, even if feasible, may end up sacrificing another key goal of health policy, i.e. protection against the financial risk from illness.

In theory, user charges can contribute to improved efficiency in several ways. For instance, if health care services in the public sector are being overutilized because they are free, then the imposition of user charges may help in curtailing some of this excess usage. In developing countries such as India, the most obvious example of such excess usage is the high use of outpatient departments in high-end secondary and tertiary hospitals, and the under use of primary health care centres (PHCs) for minor illnesses. By imposing user charges in public hospitals, especially for individuals who visit without a referral from a lower-level facility such as a PHC, policy-makers may be able to achieve more rational use of health facilities. This rationalization can be strengthened if revenues from user charges can help enhance the quality of care at lower-level facilities.

Efficiency can also be promoted if user charges help to provide essential complementary items (such as drugs and consumables) to health facilities. A health facility with personnel but no consumables is one example where additional resources to fund consumables would also help improve the yield from the available medical personnel. If user charges not set at too high a level, they might lead administrators to make efforts to produce the associated service at a lower cost, which would enhance the efficiency of the health services.

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Finally, user charges can also be used to divert governments from subsidizing care that is less effective in achieving health improvements towards public health interventions such as immunization, clean water, nutrition and sanitation, with substantially greater health benefits per rupee spent. In this connection, the objective of resource enhancement, which requires low price elasticity, ends up conflicting with the objective of resource diversion towards public health interventions, which requires that people respond to user charges by curtailing consumption (Gertler and Hammer 1997).

However, these efficiency gains are not guaranteed. For instance, if the funds from user charges get transferred to the treasury with no guarantee of the health department getting access to these additional resources, these efficiency gains will not occur. Also, user charges at hospitals seeking to divert individuals to lower-level units will not work in the absence of quality improvements at lower-level facilities, which led to excess hospital visits in the first place. All that may happen is a decline in overall utilization of care. To this one may add another caveat—the goal of efficiency may sometimes conflict with that of financial risk protection; for example, when user charges are imposed on hospital-based inpatient care to divert public subsidies to public health interventions such as immunizations, nutrition, health promotion activities, etc.

User charges may also influence equity. If revenues from user charges are used to improve the quality of care at lower-level facilities, which typically are close to where the poor live, utilization of services by the poor as well as their health might improve. Alternatively, if user charges somehow dissuade richer sections from using public facilities, they may help the poor to obtain better access to subsidized public facilities. If these steps can be combined with fee exemption schemes for the poor, then there is a real potential for the poor to benefit from improved quality care facilitated by revenues from user fees.

Equity gains will depend on the extent to which funds are retained at the facility and health department level, are used for improvement in quality, and on how effectively the poor can be identified and exempted from user charges. If exemption is difficult to administer or if quality improvements do not happen, how the health care utilization by the poor responds to user charges becomes critical from the standpoint of a policy focused on equity in access.

Supporters of user fees have also pointed out other potential gains. Retention of user fees by facilities will help empower community-level managements that oversee their expenditures, thereby lending support for efforts at decentralization. Finally, user charges may also lead to increasing political acceptance of insurance mechanisms that help protect individuals against out-of-pocket expenses due to illness (Shaw 1996).

An empirical question

While considering the appropriateness or otherwise of user fees and their design, two sets of issues must be distinguished.

First, user fees, even if designed optimally, do not simultaneously achieve all the goals that are of interest to policy-makers. Some goals such as efficiency and resource enhancement may conflict with others such as financial risk protection (Gertler and Hammer 1997). Second, the impact of user fees in achieving health goals depends substantially on the way the fees are implemented and on the responsiveness of health service utilization to user charges. Thus, both the appropriateness of user charges and their optimal design are dependent on information that is best obtained by empirical analyses.

User Charges in Public Health Facilities: The international literature

There is now an extensive literature on user charges in health, much of it focused on sub-Saharan Africa; but also from Asian countries such as China, Indonesia and Viet Nam. This section summarizes the main findings of this literature and the resulting implications for the perceived benefits of user charges with regard to resource raising, efficiency and equity.

Resources from user fees

There is considerable debate about the effectiveness of user charges in raising revenues. In sub-Saharan Africa, user fees have tended not to exceed 5% of total government spending on health (Creese 1997). At the micro level, there are large variations across countries and facilities, even within sub-Saharan Africa. Some lower-level health facilities reported a rise in their revenues by 40%–90% of their total expenditure. Hospitals were able to raise their revenues through user charge by 15%–45% of their non-salary expenditure (Shaw 1996). On the other hand, in China, revenues from user charges accounted for roughly 36% of all government spending, and the number seems to be high for countries such as Viet Nam as well. At the facility level, the share of revenues from user charges in total expenditure is substantially higher (Creese 1997; Gertler and Hammer 1997; Shaw 1996).

Have there been any negative effects of user fees on health care utilization? There is substantial evidence that utilization of public health services fell in response to user fees in sub-Saharan Africa, Indonesia and China (Gertler and Hammer 1997; Shaw 1996, Hsiao and Liu 1996). Several early multivariate analyses to measure the responsiveness of utilization of services to their prices were plagued by a variety of methodological problems and yielded estimates that varied widely—from -0.002 to -3.6 (Reddy and Vandermoortele 1996; Shaw 1996). However, methodologically more careful analyses for Indonesia and elsewhere do suggest that health care utilization can be quite responsive to user charges; that the poor were more responsive to price increases than the rich; that urban residents were more price-responsive than rural; that inpatient care was less price-responsive than outpatient care; and that the care for children was more price-responsive than that for adults (Gertler and Hammer 1997).

The mere fact that utilization falls in response to user fees

need not necessarily be worrisome, if people also care about quality. Findings from a study in the Cameroon suggest that utilization can improve when quality improvements accompany user charges (Gertler and Hammer 1997). This suggests that the problem may not be with user charges per se, but with the way they are implemented. Moreover, if declining use of public services were accompanied by simultaneous increase in the use of private services, it may lessen the adverse health impacts of user charges. This last argument will not apply to the poor who are unlikely to be able to afford reasonable quality private sector care. In China, the evidence seems to suggest that utilization and health levels fell considerably on account of the increasing reliance on user charges to fund services of public providers (Creese 1997; Hsiao and Liu 1996).

Efficiency and user fees

A second issue is whether the introduction of user charges leads to an improvement in efficiency. While direct evidence is not available, there are good empirical reasons to believe that these gains are unlikely to have been fully realized in many cases.

In some countries, the necessary 'price signals' for efficient use of different tiers of health care were undercut by exemptions at higher-end facilities for special groups—government employees, doctors and their dependants, and others. This is an example where there might have been a trade-off between the objective of risk protection and the objective of efficiency. Inefficiencies have not been eliminated in some countries owing to a referral system that does not provide any special benefits to people being referred to a higher-level facility from lower-level facilities as compared with those who directly access the higher-level facility. In other countries, revenues raised from user fees were not used to provide additional supplementary resources, or were not retained at the facility level, but were directly transferred to the treasury. Thus, efficiency gains from complementarities between existing facility resources and additional revenues could not be exploited.

However, the picture is not bleak everywhere. In Zaire (now the Democratic Republic of Congo), the implementation of user fees was found to have reduced the utilization of district hospitals as the place for a first visit, and increased utilization of PHCs. This may point to the efficiency gains referred to above.

However, it is important to keep in mind that if suitable exemptions are not in place, the objectives of efficiency may conflict with those of equity. Moreover, child health may disproportionately be affected, because their utilization of health care facilities is more price-responsive as compared with that of other age groups.

Equity and user fees

User charges are considered especially problematic from the standpoint of equity. To the extent that most African countries do not have exemption policies for the poor, user fees

may harm them. The higher the responsiveness of the poor to fees charged for services, the higher may be the potential harm to their health; and increased inequity may result, if the poor respond by reducing utilization more than the rich do. The early literature on the subject did not provide a conclusive answer to the question: Are the poor more responsive to prices (user charges) for health services than the rich? These early studies were plagued by a variety of methodological problems. In some country studies, price elasticities of demand for health care were found to be statistically indistinguishable from zero (Shaw 1996). However, later studies have been able to empirically establish that the poor are indeed more responsive to health service prices than the non-poor (Gertler and Hammer 1997). As shown by the Cameroon study, user charges may not negatively affect utilization by the poor if the imposition of user charges was simultaneously accompanied by quality improvements. Indeed, the poor were likely to respond more strongly to quality improvements than the non-poor.

Equity may, however, be considered along other dimensions: child versus adult health care utilization; rural versus urban population; and across gender. As recent international studies suggest, the price-responsiveness of health care utilization does vary across these different groups. Addressing these inequities requires a somewhat more nuanced approach to the designing of user fees to take into account different elasticities of health services utilization. For instance, one may propose lower user fees for children. At the same time, one cannot immediately conclude that user fees for adults ought to be higher, especially for inpatient care, which could be very expensive. In this case, lower user fees serve the objective of risk protection, especially for the poor.

User Charges: The Indian experience and policy implications

There are hardly any studies that provide insights into the potential impact of user charges in an Indian setting. The only pertinent study in India is a demand analysis undertaken by Gupta and Dasgupta (2000) who used data from a nationally representative survey carried out by the National Council for Applied Economic Research (NCAER). The study found that, across the economic spectrum, the price elasticity of demand for outpatient health care was statistically indistinguishable from zero. If so, one might expect user charges to be not so harmful for the objective of raising revenue (since demand will not be affected much by price increases). The low price elasticity also suggests that price incentives for bringing about efficiency improvements are unlikely to work well because people will not change their utilization much in response to price changes. Finally, to the extent that the price elasticity of demand for outpatient care was close to zero at all income levels, the study's findings suggest that user fees may not have an adverse effect on equity of utilization.

The above study suffers a number of methodological problems, perhaps the most significant being the absence of a quality indicator (Shaw 1996; Gupta and Dasgupta 2000).

Moreover, its use of the income variable as the indicator of economic status may be problematic to the extent that it may not properly reflect the household's earning potential (permanent income) and is likely to be under-reported, more so at higher income levels.

One can learn about the impact of user fees on the various policy objectives from the actual experience of public sector health facilities that have imposed user fees in India. There are now a large number of facilities in India—mainly secondary and tertiary hospitals in the public sector—that have imposed user charges as part of the World Bank's health system development projects and other reforms instituted by states. Another feature of these projects is the extensive record-keeping of utilization of services at the various facilities where user charges were imposed. One can examine the utilization of services at a baseline date and compare it to a later date to assess the impact of user fees in the interim period.

To address our questions about user charges, we now examine some of the information made available to us from the states of Andhra Pradesh and Maharashtra. It should nonetheless be emphasized that the 'before-after' studies like the ones we resort to now, which take little account of confounding elements in the price-utilization relationship must, in the language of Gertler and Hammer (1997), be treated with 'extreme caution'. To take account of at least one confounding element, we supplement our findings on utilization of services with supporting evidence on the impact of user fees on the quality of care.

User fees in Andhra Pradesh Vaidya Vidhana Parishad (APVVP) hospitals

The Andhra Pradesh Vaidya Vidhana Parishad (APVVP) manages 228 public sector hospitals, categorized as district hospitals, area hospitals, community health centres, specialty hospitals and dispensaries. The APVVP regularly collects data on utilization of services from 159 hospitals supported by the World Bank, on inpatients and inpatient days, outpatient visits, diagnostics, surgeries and deliveries. This information is available separately for individuals living above or below the poverty line (BPL), based on their possession of cards identifying them as such, and by gender. Facility-level information on total bed capacity in each department, the number of doctors by specialty, nursing personnel and other para-

medical staff is also available. In addition, APVVP hospitals also collect information on revenues from user charges and various stoppage charges (charges for rent of parking spaces, shopping spaces and the like, not required for health service provision), and the way these revenues were used by hospital societies.

We used APVVP data to ask three questions:

- What is the magnitude of user charges in APVVP hospitals?
- Is there any association between user charges and quality of services provided?
- Is there any association between user charges and health care service utilization by the poor and the non-poor?

Sixty hospitals were purposively selected from the World Bank-supported 159 hospitals in Andhra Pradesh, after stratifying by geographic region (23 from Andhra, 12 from Rayalseema and 25 from Telengana) and were considered representative of rural and district-level hospitals (Table 1). The data on user charges and stoppages, the annual budget registers and the departmental audited financial reports of the selected hospitals formed the basis for the financial data used in the study. The data are for three consecutive financial years from 2001-2002 to 2003-2004.

Table 2 gives region-wise data on the magnitude of user charges, in absolute terms and as a proportion of total hospital expenditure for the sample of health studies. The evidence presented clearly points to the rising importance of user charges that have grown considerably in importance in absolute terms and as a percentage of total non-salary expenditure even over the short time period for which we were able to obtain data.

Andhra Pradesh allows APVVP hospitals that levy user charges to retain the revenues. This raises two questions: Did the greater potential for user charge revenues influence budgetary allocations from the government? And did this translate into improvements in the quality of care provided at APVVP hospitals?

The first question can be examined in two parts: The (overall) amounts allocated by the State Government to the APVVP as a share of its health budget; and the amount allocated to individual APVVP hospitals from the overall APVVP budget. Data for the latter were not readily accessible. As to the former, it is quite apparent from the data that the share of the

Table 1

Sample of hospitals selected from the various regions of Andhra Pradesh

Region	District hospitals		Area hospitals		Community health centres		Specialty hospitals		Total	
	No.	Sample	No.	Sample	No.	Sample	No.	Sample	No.	Sample
Andhra	8	3	19	6	33	12	4	2	64	23
Rayalseema	3	2	9	4	15	5	1	1	28	12
Telengana	9	3	27	10	29	11	2	1	67	25
Total	20	8	55	20	77	28	7	4	159	60

APVVP in the total expenditure/budget of the State Government has declined in recent years—from 16.7% in 2001-02, to about 10% in 2003-4 (Mahal et al. 2003, authors' estimates using APVVP data). Thus, user charges have become important for APVVP hospitals as a response to declining

Table 2**User fees in the samples of APVVP hospitals, by region, 2001-04**

Region and expenditure	2001-02	2002-03	2003-04
Andhra			
User fee revenues (Rs in lakh)	36.52	62.00	82.13
User fees/total expenditure (%)	2.10	3.15	4.18
User fees/total non-salary expenditure (%)	15.50	21.56	35.36
Rayalseema			
User fee revenues (Rs in lakh)	11.50	35.72	44.21
User fees/total expenditure (%)	1.08	3.31	3.39
User fees/total non-salary Expenditure (%)	9.85	26.18	37.75
Telangana			
User fee revenues (Rs in lakh)	43.85	86.71	106.20
User fees/total expenditure (%)	2.22	3.79	4.47
User fees/total non-salary expenditure (%)	18.11	26.33	38.16

APVVP: Andhra Pradesh Vaidya Vidhana Parishad
Source: Authors' estimates, using APVVP data.

revenue sources and not as an independent additional source of revenue.

Despite these findings, it might still be useful to inquire whether the retention of revenues from user charges by the hospital societies in APVVP hospitals led to increased investments in the quality of services provided, owing to the increased flexibility with which such funds could be used. Table 3 presents findings on the aggregate utilization of funds generated from user charges and their trends over the years. It is immediately clear from the data that the utilization of APVVP funds has been extremely tardy, although it has been improving over time – user fee utilization rates were barely 43% in

Table 3**Proportion of user fee revenues utilized by the APVVP (trends, 2001-04)**

State/region	2001-02	2002-03	2003-04
All Andhra Pradesh	42.5	53.3	72.7
Andhra	82.8	90.5	93.5
Rayalseema	27.9	52.9	80.1
Telangana	12.8	26.9	53.5

APVVP: Andhra Pradesh Vaidya Vidhana Parishad
Source: Authors' calculations, using APVVP data.
We have assumed that the utilization rate for user charges is the same as the utilization rate for the total of user charges and stoppages since both are in the same bank account and under the control of the hospital committees attached to the hospitals.

2001-2, rising to about 74% in 2003-4. Moreover, the rates differ across regions – ranging from 53% in Telangana in 2003-4 to more than 90% in Andhra. Taken together, these data suggest not only a potential inefficiency in resource use, but also a geographical inequity in the way revenues from user fees were utilized.

The precise reasons for these inter-regional and inter-temporal differences in utilization rates of revenues from user fees are unclear. Potential explanations could lie in indivisibilities in priority needs-equipment, large maintenance costs—or, they may be the result of dysfunctional hospital committees, and these are worthy of further investigation. The obvious explanation for the increase in utilization rates of revenues from user fees over time is the decline in government allocations to APVVP, potentially necessitating the use of revenues from user fees to make up the deficit, and maintain quality. Information on the utilization patterns of revenues from user fees for 2003-04 suggests that funds have mostly been used for activities that potentially contribute to increased quality of services—payments for contracted personnel (11%), drugs and consumables (14%), maintenance (13%) and electricity (21%). Whether these contributed to increased quality of services relative to the situation before the introduction of user fees, however, appears somewhat questionable in light of the corresponding declines in government allocations. Perhaps the best that can be said is that revenues from user fees helped maintain APVVP service quality in the face of declining contributions from State Governments, at least in the most recent years for which data are available.

If all that revenues from user charges did was to maintain quality through filling in for the declines in support from the government, one might naturally expect utilization rates to fall in APVVP facilities on account of such charges. We do not have the actual number of poor in the 'catchment' areas of the sample hospitals in the three regions to calculate utilization rates. However, we do have information on the share of the poor (as indicated by identification cards issued by the government) in total utilization of the health services in APVVP facilities during the period 2001-02 to 2003-04 (Table 4). The data clearly point to the declining share of the poor in total utilization across a broad range of services provided at APVVP hospitals, particularly inpatient care services. This tendency was somewhat less marked in diagnostic services and laboratory tests.

Information from the APVVP suggests that overall utilization of inpatient and outpatient care has increased over time. Between 2001-2 and 2003-4, for instance, total utilization at the APVVP facilities in our sample increased at an annual of 26 percent for inpatient stays, and by 19 percent for outpatient visits. However, the declining share of the poor during the same period (Table 4) meant that the utilization of these two types of services by the poor increased much more slowly – by 14 percent and 7 percent, respectively – and in the Rayalseema region, utilization by the poor actually declined over the same period.

Table 4**Proportion of total utilization accounted for by the poor in Andhra Pradesh, by region and type of service, 2001-04**

State/region	Services	2001-02 %	2002-03 %	2003-04 %
All Andhra Pradesh				
	Inpatients	92	79	65
	Outpatients	83	75	68
	Surgeries	82	79	74
	Deliveries	74	62	53
	Laboratory tests	85	79	78
	Diagnostic tests	64	62	63
Andhra				
	Inpatients	90	81	71
	Outpatients	80	81	81
	Surgeries	72	75	67
	Deliveries	65	66	56
	Laboratory tests	83	75	73
	Diagnostic tests	72	73	67
Rayalseema				
	Inpatients	97	82	58
	Outpatients	92	71	57
	Surgeries	84	63	56
	Deliveries	72	48	44
	Laboratory tests	95	92	90
	Diagnostic tests	65	63	66
Telangana				
	Inpatients	89	75	67
	Outpatients	79	74	64
	Surgeries	95	95	92
	Deliveries	85	67	56
	Laboratory tests	77	69	69
	Diagnostic tests	56	52	56

Source: Authors' estimates using data from the Andhra Pradesh Vaidya Vidhana Parishad.

Implications of user fees in government hospitals in Maharashtra

In contrast to the APVVP, we were able to get much less detailed data for Maharashtra, another state where user fees were introduced in secondary hospitals as part of the reform process supported by the World Bank. User fees were sharply raised in Maharashtra in 1999 and 2001 (personal communication with Ravi Duggal; Duggal 2003). In fact, the average fee paid per patient in the 136 health facilities covered under the World Bank health systems project in Maharashtra more than doubled between 2000 and 2001, with the increase being particularly marked at higher-level facilities such as district hospitals and sub-district hospitals with 100 beds (personal communication with Ravi Duggal). We used the data on health facility utilization from the Department of Health, Maha-

raashtra to assess the impact of this increase on utilization, especially by the poor. Given the sharp increases in user fees between 2000 and 2001, one would expect that utilization by the poor would fall, or at any rate, increase more slowly than richer groups so that their share in overall utilization ought to decline, or else be the same.

Table 5 provides us with information on utilization (and the proportion of total utilization accounted for by 'free care') for inpatient stays and outpatient visits in a sample of 55 health facilities—9 community health centres, 35 sub-district hospitals and 11 district hospitals—for the years 1999, 2000 and 2001. Only those facilities were included in the sample that had complete utilization data for the three years. The data suggest that, with one exception, overall utilization declined between 2000 and 2001 for outpatient visits and inpatient care in all four categories of facilities, and the share of the poor in total utilization mostly fell as well. Unfortunately, the recorded data on utilization by families below the poverty line families were incomplete and did not appear reliable. Instead, we used information on the proportion of users of care who obtained the care for 'free' as per the hospital records as a proxy for utilization by the poor. In general, not all 'free' users of public health facilities are poor. An ongoing review of utilization of public facilities in Maharashtra suggests that only about 40% of the 'free' users can be termed poor, with the rest being beneficiaries of various exemptions—government employees, freedom-fighters and the like (personal communication with Ravi Duggal). The use of data on the 'free' users of care can potentially bias our conclusions: for instance, if imposition of user charges is accompanied by better targeting of users in a way that improves health facility access to the poor, then imposition of user charges can be consistent with both improved utilization by the poor and with a decrease in 'free' users of care. However, we do not believe that the bias is a serious one in the case at hand since the user fee regime in Maharashtra itself dates back to before 2000, so any sorting on account of better identification of the poor is likely to have occurred before the hike in user charges in 2000, i.e. we believe that the composition of the poor among 'free users of care' is unlikely to have changed much in the period immediately before and after 2000.

Why did utilization by the poor decline? Clearly, the rapid economic growth currently being experienced by Maharashtra and the consequently declining numbers of the poor are confounding elements. However, the anecdotal literature from Maharashtra and elsewhere offers an alternative, perhaps more compelling explanation. First, revenues from user fees in Maharashtra have remained largely unutilized and, therefore, not contributed to quality improvements even when retained by hospital committees at the facility level (Duggal 2003). The underutilization has partly been the result of government orders that have frozen these funds owing to fears of misappropriation. Interestingly, this freeze on fund use has left the collection of user fees unaffected, so that whereas the deterrent effect on utilization of user charges would have remained, it is unlikely that quality of care improved.

Second, the exemption scheme for the poor may not have

Table 5

Inpatient and outpatient care utilization in public health facilities in Maharashtra according to facility type and selected years

Facility	1999			2000			2001		
	Total	Free	%	Total	Free	%	Total	Free	%
Community health centres (CHC)									
Outpatient visits (000s)	303.0	26.4	8.7	326.6	28.6	8.8	321.7	26.6	8.3
Inpatient stays(000s)	28.2	14.3	50.8	26.7	14.7	55.2	27.7	13.8	49.9
Sub-district hospitals (50 beds)									
Outpatient visits (000s)	681.5	61.2	9.0	656.8	61.2	9.3	565.8	57.8	10.2
Inpatient stays(000s)	48.1	21.2	44.1	51.1	23.2	45.4	41.8	17.7	42.3
Sub-district hospitals (100 beds)									
Outpatient visits (000s)	714.0	86.9	12.2	747.5	87.0	11.6	726.6	68.6	9.4
Inpatient stays(000s)	94.1	52.1	55.4	102.7	53.7	52.3	112.5	58.8	52.2
District hospitals									
Outpatient visits (000s)	1339.0	117.7	8.8	1389.6	130.1	9.4	1375.9	123.0	8.9
Inpatient stays(000s)	217.3	52.9	24.3	221.3	50.4	22.8	229.5	45.5	19.8

Note: Data provided by Maharashtra State Department of Health. 'Free' refers to stays or visits provided at no official charge. Data cover 11 district hospitals, 16 sub-district hospitals with 100 beds, 19 sub-district hospitals with 50 beds, and 9 community health centres. Only those hospitals that had a complete set of statistics for the years 1999-2001 were included.

worked as well as envisaged. There is, for instance, evidence from Punjab (another wealthy state with health reforms initiated with World Bank support) that the process for obtaining exemption cards was time-consuming and bureaucratic, making it virtually impossible for a poor person to obtain the benefits associated with such cards (Gupta 2002). Without quality improvements and exemptions, it seems reasonable to support the claim that utilization by the poor must have declined.

Declining utilization of services in public health facilities need not be worrying from the standpoint of access to health, if the individuals shift to private sector facilities for health care of comparable quality. However, this argument is unlikely to hold for the poor, who may not be able to afford such care. The more likely outcome is either a shift to self-care or to lower quality providers.

Conclusion

Clearly, neither theory nor empirical analysis offers an open-and-shut case on user charges. Provided quality improvements accompany user charges and there are exemptions for the poor or for groups such as children whose health care use is price-elastic, user fees can contribute to improvements in equity. When user fees can contribute to revenues that enable better usage of previously underutilized resources, or when they can be used to guide referrals to higher-end facilities, they can contribute to increased efficiency and quality as well.

The optimal strategy on user fees, however, must consider three areas where user fees are especially problematic. The first is in the identification of beneficiaries. The second is their potential impact on the protection offered by public services against the financial risk associated with illness, mostly with

the need for inpatient care. The third is the utilization of funds collected from such fees.

As for the identification of beneficiaries, there is some concern that existing methods for this purpose, which have focused on means testing, have not done well in India. Other approaches have also been tried or considered in different countries—by type of service used and by geographical region. All suffer from leakages in some form or the other, and tend to put a large administrative burden on health facility personnel (Gertler and Hammer 1997). For these reasons, a regime based purely on user fees is unlikely to work well.

The above discussion also suggests a method of identification and exemption, which may be administratively less burdensome, and simultaneously addresses the second problem of 'insurance against catastrophic health risk'. In particular, some form of community or social insurance, whereby contributions of the poor are undertaken by the government/community may be the way to go. This removes the burden of identifying the poor from health facility personnel, and transfers it to a professional insuring group or communities, who may be able to do it better. An example is the use of village-level management committees (composed of village elders) in community-financing experiments in China who serve to both enroll people into schemes as well as help identify the poor (personal communication with William Hsiao, Harvard University). Of course, for this alternative scheme to work well, insurance must ideally be compulsory—voluntary participation in insurance can potentially lead to adverse selection and risk selection as a response—the original reason for the failure of the free market to provide insurance. On the other hand, some voluntary community-financing schemes have managed to do reasonably well in countries such as China (personal communication with William Hsiao, Harvard University).

An insurance regime that pays health facilities for services provided the precise payment mechanism (capitation basis or other) can be readily combined with a user fee regime that offers many of the benefits discussed above. For instance, insurance may not reimburse expenses when the user visits a high-level facility prior to obtaining referral from a lower-level facility, lower co-payments for childhood conditions, and the like.

Acknowledgements

We are grateful to Mr Ravi Duggal of CEHAT for his thoughtful comments that helped improve our analysis, and to Ms Sujatha Rao, Member Secretary of the National Commission on Macroeconomics and Health for encouraging us to work on the study.

References

Arhin-Tenkorang D. Mobilizing resources for health: The case for user fees revisited. Working paper no. #WG3:6. Geneva: World Health Organization, Commission on Macroeconomics and Health; 2000.

Andrew C. User fees: They don't reduce costs and they increase inequity [editorial]. *British Medical Journal* 1997;315:202-3.

Duggal R. Whither user charges. *Express Healthcare Management* 31 August 2003.

Gertler P, Hammer J. Strategies for pricing publicly provided health services. Discussion paper. Washington, DC: The World Bank. Available from URL: <http://www.world-bank.org/html/dec/Publications/Workpapers/WPS1700series/wps1762/wps1762.pdf> 1997. [Accessed on November 25, 2004]

Gupta V. World Bank funded health care: Reality or deception. Available from URL: http://www.sikhspectrum.com/062002/world_bank.htm; 2002. [Accessed on November 25, 2004]

Gupta I, Dasgupta P. Demand for curative health care in rural India: Choosing between private, public and no

care. Discussion paper #14/2000. New Delhi: Institute for Economic Growth; 2000.

Hsiao W, Liu Y. Economic reforms and health: Lessons from China. *New England Journal of Medicine* 1996;335:430-2.

Mahal A, Narayana K, Rao S. Expenditures and financing of the department of health, medical and family welfare in Andhra Pradesh: Towards a resource envelope for the period 2003-7. New Delhi: Department for International Development.

Reddy S, Vandermoortele J. User financing of basic social services: A review of theoretical arguments and empirical evidence. UNICEF Staff Working Papers. New York: United Nations Children's Fund, Evaluation, Policy and Planning Series; 1996

Paul SR. User fees in sub-Saharan Africa: Aims, findings, policy implications. In: Paul SR, Ainsworth M (eds). *Financing health services through user fees and insurance: Case studies from sub-Saharan Africa*. Discussion paper number 294. Washington, DC: The World Bank, Africa Technical Department; 1996.