# COMPARISON OF PUBLIC AND PRIVATE MALARIA SERVICES: IMPLICATION FOR IMPROVING THE QUALITY PERCEPTION AMONG THE USERS FROM A LOW SOCIO-ECONOMIC LOCALITY OF SURAT, INDIA

Vibhavendra S Raghuyamshi, Vikas K. Desai\*, Pradeep Kumar\*

Deptt, of Oral Health Policy and Epidemiology,

Harvard School of Dental Medicine, 188 Longwood Avenue, Boston, Massachusett 02115, USA

\*Deptt. of Preventive and Social Medicine,

Government Medical College, Surat 395001, India

#### Abstract:

Research question: Services for malaria care provided by which sector (public or private) are preferred by the community? Objectives: To determine the hierarchy of the service related factors influencing the utilization of malaria services (irrespective of the sectors) and to compare the urban health centers (UHCs) run by the Surat Municipal Corporation (SMC) and the private practitioners (PPs) on these factors.

Study design: Cross-sectional descriptive study by interview method.

Settings: Inhabitants of a poor locality of Surat city.

Participants: Informants (one each) from the 100 households from the locality selected by random sampling.

Study variables: Service related factors influencing use of malaria services and rating UHCs and the PPs on these factors.

Statistical analysis: Calculation of mean scores with 95% confidence intervals and t statistics.

Results: Seven factors were identified and rated by the community as important for malaria care. "Good medicines" was perceived as most important and the "less waiting period" as least important factor. Participants rated the services by PPs as better than of UHCs for malaria care for all the seven factors. Except for two factors namely doctor is good and the medicine is good, the difference was statistically significant.

## Key Words: Malaria care, Private practitioners, Public care providers

### Introduction:

Public health sector is often blamed for inefficiency and non-responsiveness<sup>1</sup>. On the other hand, private sector is perceived as more flexible and client oriented. In terms of satisfaction, users appear more satisfied with the PPs<sup>2</sup>, though it could be relative in the absence of real alternative. However, this cannot be ignored since satisfaction is seen as the measure of the quality of services<sup>3</sup>. Studies have highlighted the weaknesses in the public sector and the preference for the private services<sup>4</sup>. At the same time, it's also acknowledged that services at public facilities are more rational, guideline-based and conservative on drug prescribing<sup>5,6</sup>.

The private health sector of most of the developing countries, though popular, is poorly regulated and, therefore, has its down side as well<sup>7,8</sup>. Tight government fiscal situation has renewed the interest in public-private partnership<sup>9</sup>. There is much to be gained by learning from the strengths and weaknesses of each of these two sectors. There are some studies on the factors influencing the

utilization of the health services<sup>4,10</sup>. However, we know little on the hierarchy of these factors that may help for priority setting. In this cross-sectional, descriptive study, conducted in a poor socio-economic locality of Surat City of India in 1999, we have attempted to determine it.

### **Material and Methods:**

Hundred households were interviewed using structured interview technique from a lower socio-economic locality of Surat City. The choice of the locality was based on the logistics and expectation that the utilization of the UHC would be more in a lower socio-economic area. The sample size was calculated using the formula,  $n = (t^2pq/d^2)$  (where t = 1.96 at 95% confidence; p = population proportion; q = 1-p; d = allowable error. For this study, we presumed maximum variability, hence p = 0.5; q = 0.5; d = as 20% of p i.e. 0.1 giving a power (1-d) of 80%. Sample size thus yielded was of 100 informants. The sample was drawn through random sampling. The interview covered questions on the service related factors affecting the

utilization of malaria services and how public and private services compared on those factors. The eldest available household member above 15 years present at the time of survey was interviewed. In case the house was locked or no one above 15 years was available, next sampled house was visited.

Prior to the data collection, a limited interaction with select families of the area revealed seven common service related factors influencing the utilization of malaria services in this locality. These seven factors were used to determine the order of their preference. Finally, the public and private malaria services were compared. The seven service related factors were each written on separate card of different colours. The participants were asked to arrange the cards according to their preference - in a descending order with the most favoured factor on the top. The factors were then given scores based on the arrangement of the cards. The top card getting the highest score of 7 and the bottom card the lowest of 1. The weighted average of these scores gave the

hierarchy of the service-related factors. At the same time each respondent was also asked to rate and score public and private malaria services as good (3), average (2) and bad (1) for each of the seven factors. This quantification gave4he comparative standing of public and private malaria services as perceived by the study participants.

## **Results:**

# Service-related factors affecting the utilization of malaria services:

Hierarchical arrangement of the service related factors affecting the utilization of malaria services both in public and private sectors. 'Good medicines' with the highest score was the most important factor, whereas, 'less waiting period' with lowest score was the least important factor. The first four factors i.e. good medicines, gets relief, good doctor and good behaviour of the doctor would be referred as 'quality-related' factors in the following discussion.

### Comparison of UHC and private clinics on the service-related factors:

Table I: Comparison of UHC and the private practitioners on the service-related factors (n=100). (All the scores are out of 3)

Private practioners (PPs)	UHC Mean (95% CI)	"t"	p
Mean (95% CI)		more flexible	perceived as
2.42 (2.28, 2.56)	2.10 (1.95, 2.25)	3.13	0.002
2.45 (2.31, 2.58)	2.27 (2.12, 2.42)	1.80	0.072
2.55 (2.41, 2.69)	2.51 (2.37, 2.65)	0.41	0.681
2.56 (2.44, 2.68)	2.15 (1.98, 2.32)	4.01	0.0001
2.56 (2.43, 2.69)	2.29 (2.14, 2.44)	2.64	0.0088
2.74 (2.64, 2.84)	1.83 (1.67, 1.99)	9.47	< 0.0001
2.77 (2.66, 2.88)	1.78 (1.64, 1.92)	10.95	< 0.0001
	2.42 (2.28, 2.56)   2.45 (2.31, 2.58)   2.55 (2.41, 2.69)   2.56 (2.44, 2.68)   2.56 (2.43, 2.69)   2.74 (2.64, 2.84)   2.77 (2.66, 2.88)	Mean (95% CI)   Mean (95% CI)     2.42 (2.28, 2.56)   2.10 (1.95, 2.25)     2.45 (2.31, 2.58)   2.27 (2.12, 2.42)     2.55 (2.41, 2.69)   2.51 (2.37, 2.65)     2.56 (2.44, 2.68)   2.15 (1.98, 2.32)     2.56 (2.43, 2.69)   2.29 (2.14, 2.44)     2.74 (2.64, 2.84)   1.83 (1.67, 1.99)     2.77 (2.66, 2.88)   1.78 (1.64, 1.92)	Mean (95% CI)   Mean (95% CI)     2.42 (2.28, 2.56)   2.10 (1.95, 2.25)   3.13     2.45 (2.31, 2.58)   2.27 (2.12, 2.42)   1.80     2.55 (2.41, 2.69)   2.51 (2.37, 2.65)   0.41     2.56 (2.44, 2.68)   2.15 (1.98, 2.32)   4.01     2.56 (2.43, 2.69)   2.29 (2.14, 2.44)   2.64     2.74 (2.64, 2.84)   1.83 (1.67, 1.99)   9.47     2.77 (2.66, 2.88)   1.78 (1.64, 1.92)   10.95

Study participants rated private practitioners (PPs) better on all the seven factors. Other than 'doctor is good' and 'good medicines', all other factors were significantly different between the UHC and the PPs. Another interesting observation was that the least favoured service-related factors, i.e., less waiting period and 'near your house' showed the most significant difference between the UHCs

## and the PPs (Table I).

### Discussion:

Factors influencing the utilization of health services are classified into: characteristics of the subjects, disorders and the service<sup>11</sup>. The focus of this study was on. the service-related characteristics. The two important findings

Downloaded from http://journals.lww.com/ijom by BhDMf5ePHKav1zEoum1tQfN4a+kJLhEZgbsIHo4XMi0hCywCX1AW nYQp/IIQrHD3i3D00dRyi7TvSFI4Cf3VC4/OAVpDDa8K2+Ya6H515kE= on 11/08/2024 were: (a) 'quality related' factors were important utilization determining factors, in both PPs and UHCs and (b) major difference between the UHC and the PPs was the waiting period and the geographical accessibility of the health facility. The UHC and the PPs also differed on cleaner appearance, better behaviour of the doctors and getting relief. These differences, despite being significant were less so compared to the earlier two differences. It was further apparent that regarding dispensing good medicines and professional competency of the doctors (good doctor), there was not much difference between the UHCs and the PPs. In our study area there was one UHC with a staff of over 30 including 2 qualified doctors; laboratory and indoor facilities; and a free referral system. It was within 3 kms. of walking distance from most of the study participants' residences and offered consultation for only Rs. 3 including free medicines and laboratory investigations. Despite this, the study participants rated PPs high on all the factors. Given that the UHC is in the neighbourhood with not much difference in the waiting time compared with PPs (35 and 25 minutes respectively)<sup>12</sup>, and that the study participants mentioned 'quality factors' to be most important utilization determining ones, it appears that there were other apparently 'invisible' reasons for this PP preference. The contradictory nature of the results (i.e., despite having cheap, geographically near and reasonably good malaria services at the UHC, the study participants favoured PPs on all the seven factors) hinting that these 'invisible' reasons could be moral hazard<sup>13</sup> and or misplaced perception of the 'quality of malaria services' of the study participants. Cheap consultation, free medicines and free laboratory services were probably responsible for moral hazard, where people perceive free and cheap services to be bad or of poor quality. On the other hand it appears that the study participants perceived quality only as convenience. For them probably less waiting period and less travelling time were the only quality determining factors. Though these two factors are important determinants of quality, yet not too much importance should be laid on them, especially in settings where private health sector is poorly regulated, leading to lot of malpractice<sup>14</sup>. Additionally, on demand<sup>15</sup> and liberal despensing<sup> $\frac{1}{6}$ </sup>; flexible work hours and home calls<sup> $\frac{1}{6}$ </sup> make PPs

more convenient to use, which may be inappropriately conceived as "quality". Thus, there is a need for improving the quality perception of malaria services, emphasizing on the professional criteria of quality among the users. Incorporating some incentive system fo<sup>r</sup> motivating the users to rely on the "real" quality rather than only on the convenience factors can facilitate this process. Previous studies identified geographical accessibility<sup>10</sup> and quality of care<sup>17</sup> as two important service-related factors determining the utilization of the health services which are consistent with the findings of our study. However, we have also explored other factors in addition to these and obtained their hierarchy. We also compared UHC and the PPs on these factors. We have tried to show that in our context the PP preference for malaria services could be due to moral hazard and misplaced quality perception. Nevertheless, there is a need to conduct this study at a larger scale to have more power and precision.

It seems probable that the PPs can borrow guideline based treatment approach from the UHCs and the UHCs can borrow patient oriented, customized service approach (positive behaviour) from the PPs. This mutual improvement on the weaker features of both the UHC and the PPs could create a positive environment for broader, longer and more meaningful partnership between the two.

## **References:**

- Annis S. Physical access and utilization of health services in rural Guatemala. Soc Sci Med [D] 1981; 15:515-23.
- Kloos H, Etea A, Degefa A et al. Illness and health behaviour in Addis Ababa and rural central Ethiopia. Soc Sci Med 1987; 25: 1003-19.
- Smith WA. Consumer demand and satisfaction. The hidden key to successful privatization. Washington DC: Academy for Educational Development, Health Com, 1989.
- Gilson L, Alilio M, Heggenhougen K. Community satisfaction with primary health care services: an evaluation undertaken in the Morogoro region of Tanzania. Soc Sci Med 1994; 39: 767-80.

- 5. Gilson L, Mwankusye S, Teuscher T. Assessing prescribing practice: a Tanzanian example. International Journal of Health Planning and Management 1993; 8: 37-58.
- Greenhalgh T. Drug prescription and self-medication in India: an exploratory survey. SocSciMed 1987;25: 307-18.
- Hogerzeil HV, Bimo, Ross-Degnan D et al. Field tests for rational drug use in twelve developing countries. Lancet 1993; 342: 1408-10.
- Trostle J. Inappropriate distribution of medicines by professionals in developing countries. Soc Sci Med 1996; 42: 1117-20.
- 9. World Bank. Sector strategy: health, nutrition and population. Washington DC: World Bank, 1993.
- 10. Stock R. Distance and the utilization of health facilities in rural Nigeria. Soc Sci Med 1983; 17: 563-70.
- 11. Kroeger A. Anthropological and socio-medical health care research in developing countries. Soc Sci Med 1983; 17: 147-61.

### Contd. from page 76

- 3. E. Masihi et al. A summary report of an assessment of drug abuse, drug users and prevention series in the city of Ahmedabad, Ministry of Social Welfare; Government of India/
- 4. B. SridharRao, A.S. Wantamutte, M.D. Mallue. Drug

- 12. Raghuyamshi V. Study of malaria services provided by the Surat Municipal Corporation. Department of PSM, Government Medical College, South. Gujarat University, Surat, 2000: 106.
- Gilson L, Mills A. Health sector reforms in Sub-Saharan Africa: lessions of the last 10 years. Health Policy 1995; 32: 215-43.
- 14. Ross-Degnan D, Laing R, quick J et al. A strategy for promoting improved pharmaceutical use: the International Network for Rational Use of Drugs. Soc Sci Med 1992; 35: 1329-41.
- Wyatt HV. Mothers, injections and poliomyelitis. Soc Sci Med 1992; 35: 795-8.
- Berman P, Gani S. Treatment use and expenditure on curative care in rural Indonesia. Health Policy and Planning 1987; 2: 289-300.
- 17. Fitzpatrick R. Survey of patient satisfaction: I -Important general consideration. British Medical Journal 1991; 302.

use and addiction among students of J.N. Medical College, Belgaum; Indian Journal of Preventive and Social Medicine, 1981; 12(3).

5. Drug Trafficking - A historical perspective; Indian Journal of Social Works. 1989; L(l): 1-8.