# An analysis of "Health Seeking Behaviour, Health Decision Making & Health attitude" of individuals.

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Abstract

*This document analyses the health seeking behaviour & health attitude of individuals. It is shown using a framework that merely increasing access of health care facilities & providing more choices to people for health care will not necessarily lead to people using them. Its more about the behavioural aspects with regard to how & why people make certain choices in utilizing health care facilities that determines the extent & direction of use of health facilities at their disposal. This in turn has a direct bearing on the health status/outcomes of the population at large. It is therefore suggested that while formulating policies in 'Health Sector', along with setting expenditure targets, health infrastructure expansion plans etc; "Health Seeking Behaviour (HSB)" of people must be given prime importance. And this HSB, as our data of two districts show, does exhibit intrastate variation. This intrastate & possible interstate variation of HSB implies that for more effective results health policies should be formulated on the basis of the HSB of the population under consideration. Along with this we must try to device mechanism via which we can directly or indirectly impact those points where any policy change might bring about desired behavioural change which in our view is necessary for long run success of health policy.*

## 1. Introduction

In the field of Health Sciences in general & Health Economics in particular, one of the prominent focus area since decades has been revolving around issues related to *"ACCESS"* of Health Care Facilities. And this in our view has a 'unique' aspect which is that Scholars across diverse fields starting from the field of medicine & health sciences , Philosophy, Sociology, Psychology, Economics , and many more have been consistently enriching the existing understanding of Health Economics, in particular the concept of "Access & Quality" of Health Care Services , which typically is the focal point of Health Policy formulation process. And like most other countries Health Care Services provision in India to a great extent is typically concerned with two broad issues:

1) Increase accessibility of health care facilities for entire population and more so for vulnerable class (rural and EAGA states)
   *--also a part of 'MDG'*
   - *Various Health Care Programmes sponsored by state & central governments.*
   - *Also seen in India are growing private health centers.*

- *Even today "huge" demand-supply gap exists!*

2) Ensure "Quality" health care services

- *Quality of health services in India—questionable and hence needs proper Evaluation.*

Historically there have been inequities in the supply of Health Facilities (like PHCs, CHCs etc) across districts and a large amount of empirical research demonstrate a mismatch between the number of health facilities in areas and 'need' (measured simply by population or in more sophisticated ways), with deprived areas being under-served and affluent areas being over-served. "There are striking regional inequalities….." as pointed out in Government of India (GoI) NRHM document 2005. The government has taken several steps to increase access in areas of the country perceived as being 'under-served', by targeting extra resources directly at these areas in order to increase physical supply. Much attention has focused on primary care services through programmes like NRHM. The USP of NRHM is its focus of increasing supply of health care services in deprived areas which it has termed as EAGA states. However, the success of health policies depend on how and why the variations in supply influence the ability of people from vulnerable groups to register with and visit Health Centers. There is little evidence on this issue and the relatively high consultation rates amongst disadvantaged groups (as also documented in -Banerjee, Abhijit, Angus Deaton and Esther Duflo. 2004. "Wealth, Health and Health Services in Rural Rajasthan." American Economic Review) may suggest that the physical supply of GPs (General Practitioners) is not a prime issue affecting access to primary care services, at least as measured by utilization rates, and that other barriers may be more important. There is a wealth of empirical evidence addressing the key aspects of how people make choices, in particular the sort of information they require, and their willingness to travel to more distant providers. From the perspective of this debate, we are interested in whether there are systematic differences in these factors between groups, which might indicate their health seeking behaviour, health decision making & health attitude in general.

In a comprehensive review of the UK and international literature on access, choice and equity, Fotaki et al. (2005) conclude that the evidence suggests a negative impact of choice on equity (affecting adversely those from ethnic minority groups, older, lower income and less educated), although the effect is often small. In a study relating to choice and the willingness to travel for treatment, Exworthy and Peckham (2006) paint a very similar picture. Although the results vary according to the type and nature of treatment (willingness to travel being greater for urgent and specialist care). In reviewing the evidence relating to the use of information required to make informed choices, Fotaki et al. conclude that the existing differential use of information by more affluent consumers will lead to inequalities in access to care and will inhibit the ability of disadvantaged groups to make choices.

So if we want to have a holistic view of not only the health outcome or the "Health Status" of individuals per se but the forces that constantly operate to churn out these visible Health Outcomes, then it is imperative to look at a more broader entity/framework which could encapsulate these forces and not only look at access & quality in isolation. And this would then enable us to examine important questions like:

Firstly, does higher usage of '*Health Facilitie*s' translate into better health outcome of individuals? We typically have the notion that our focus should be directed more towards areas with greater need of health facilities. For this we generally argue that these areas should have high per capita health expenditure, more choices in terms of access of health facilities. Now the question is whether there exists such a positive correlation between health expenditure and wider choices of health facilities on one hand & health outcome on the other. And with regards to this point we argue & find in our research that to increase health expenditure & infrastructure is one thing & whether or not people use it along with how they use it is another. Secondly, what exactly is the problem if we are primarily focusing on access & quality i.e. is there something else that we need to examine in health policy formulation? "*The goal of understanding and predicting behavior should appropriately precede the goal of attempting to persuade people to modify their health practices. Efforts to modify behavior will ultimately be more successful if they grow out of an understanding of causal processes"*[1]. Accordingly, primary attention will be given here in an effort to understand "Why people behave as they do"! Only then will brief consideration be given to problems of how to persuade people to use health services.

Apart from looking at the focal point of our research that we have stated at the onset, our analysis will ultimately allow us to answer many crucial questions like:

- *What do people understand by the term 'Health' ?*
- *How people make choices pertaining to 'Health Services' ?*
- *Why do they make a particular choice only?*
- *What is their expectation from Health Care Services Provider?*
- *A holistic meaning of the term "Quality" in Health Services & its difference Vis-à-vis other services.*

(Note: *We examine all of above issues in light of both what people perceive & the actual visible findings. Now this would involve some value judgment on the part of the evaluator at times. But this potential criticism is not a major issue here because any behavioral analysis of this kind is bound to have subjective judgments of some kind or the other.)*

## 2. Methods and Techniques Used

Our aim is a micro level analysis of HSB i.e. at individual level. Analysis of HSB at aggregate economy level may conceal some important individual behavioural aspects which we primarily intend to capture. Though individual measures are more difficult & costly to obtain yet they provide better opportunity to examine the relation between particular attribute of population at risk in an area & their HSB.

For our research & evaluation we adopted the case study approach. For this we examined two districts in Bihar:

1. Bhagalpur district
2. Supaul district

(Note: Bihar has been clubbed in the category of EAGA states by GOI).We surveyed the following entities: (a) Individuals; male & female both (b) District Administration as & when needed. Now for our analysis a multistage stratified random sampling procedure

was used to select household for the interview. Now the question is what analytical approach we resorted to once we had the required data at our disposal & the reasons for this. Well ours is an individual centric behavioural analysis of Human Psychology about both perceived & realized actions of individual with regards to Health Care Services which go a long way in explaining the 'perceived health status'[2] of individuals. And as aptly noted by Dr.Irwin M. Rosenstock, *because health care deals with people and people are, on the whole, more complex than the subjects of the natural sciences, there is a whole set of questions about human interaction and how people interpret interaction.* So we have also resorted to both qualitative& quantitative techniques in course of our research. Now, once we had the data in hand we used logit model in our proposed framework in an attempt to measure HSB.

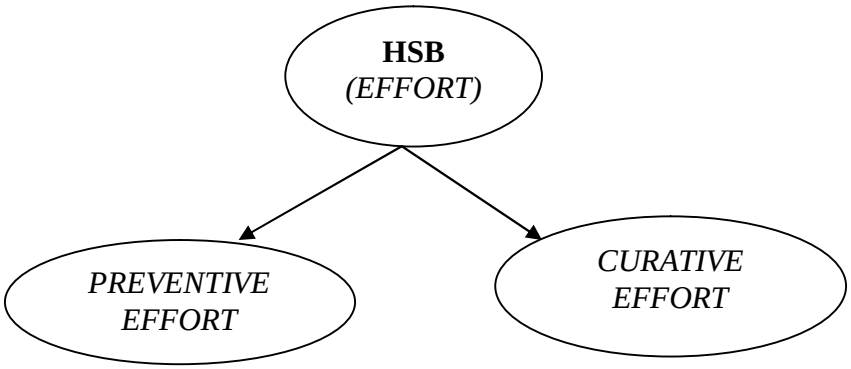
## 3. Discussion of Conceptual Framework of Analysis

Our questionnaire has been framed to capture the essential traits of human behaviour in seeking health care services, viz. health behaviour, Illness behaviour, sick-role behaviour[3] Analyzing the major findings of studies like Jane Falkingham (study for Tajakistan), Jun Gao, Shenglan Tang, Rachel Tolhurst, & Keoing Rao (study for urban China) etc. among others in different countries & population, on the patterns of use of preventive and detection services permits certain summary generalizations about the association of personal characteristics with the use of services.Though most studies of access & utilization do not throw light on "why & how" people use health services i.e behavioural aspects of individuals, nevertheless we find some crucial attempts in this direction, for eg. Kasl & Cobb tried to understand health & illness behaviour as a function of personal characteristics, Koos found a social class gradient in terms of the likelihood of interpreting a particular sign as a symptom, Stoeckle, Zola and Davidson and Zola studied the effects of ethnic values upon the specific decision to seek medical attention and on the differential interpretation of objectively similar symptoms. Freidson illustrated the different processes through which members of different social groups move in obtaining diagnosis and in seeking care. Suchman attempted an interesting and promising approach which links demographic factors to social structure, both of these to medical orientation and in turn to health and medical care. In a nutshell, *these studies demonstrate that health decision making is a process in which the individual moves through a series of stages or phases. Interactions with persons or events at each of these stages influence the individual's decisions and subsequent behavior…..."*

Our research does not attempt to provide a comprehensive explanation of each & every health behavior traits of individual. Rather, what we attempt here is a specification of several variables that appear to contribute significantly to understanding "Health Seeking Behavior (HSB)" of individuals. Now the question arises, why bother at all for HSB per se when we can directly look at whether people are utilizing health services (i.e. access) or not? Well, it can be argued that in considering the factors that influence the utilization of health services, even the characteristics of services and resources are not enough to account for entry or non-entry to the system. One must also consider the potential consumer's "willingness" to seek care (Mechanic [4]). This depends on his attitude towards and knowledge about health care and the social and cultural definitions of illness he has learned. Further, the problem in looking at access in terms of criteria such as cost,

availability, internal economy (waiting time, delays and interruptions in receiving services, etc.), psychological variables, or health knowledge is that in themselves these do not tell us whether people who want to get into the system actually do (Shortell [5]). Some type of external validation is needed to indicate whether these factors make a difference with respect to getting care, such as examining health care utilization rates of specific populations over time with reference to these factors. Keeping in view these facts the major variables in our model are drawn and adapted from general social-psychological backdrop [6].The focus in the application of our model is to link subjective status [perceived health staus/self-reported] of the individual with health seeking behavior. Based on available data we examined each variable for our modeling purpose. Now we would explain as to how we intend to use each variable in our framework.

Health Seeking Behaviour (HSB): This is the dependent variable of our model. We define "HSB" as any effort taken by an individual for his physical & emotional well being, based on his perceived "need", in case he is sick or otherwise, which translates into the use of health facilities. In our behavioural model HSB would capture not only access & its determinant but other crucial aspects of human behaviour which at times along with access explain his HSB. HSB includes both preventive & curative efforts. So we will measure HSB by an "effort" dummy.




It should be noted here that we are emphasizing on the "perceived need of individual" from the way we are defining HSB. This HSB dummy takes care of both met as well as unmet health needs of individuals concerned. An obvious question arises as to why use "perceived need" rather than "clinically observed need" of individuals in defining HSB? In our behavioural model we are trying to gauge at those factors which drive an individual to seek health services**. The most compelling determinant for this purpose is an individual's "perceived need" which he possesses even before he plans a health center visit.**

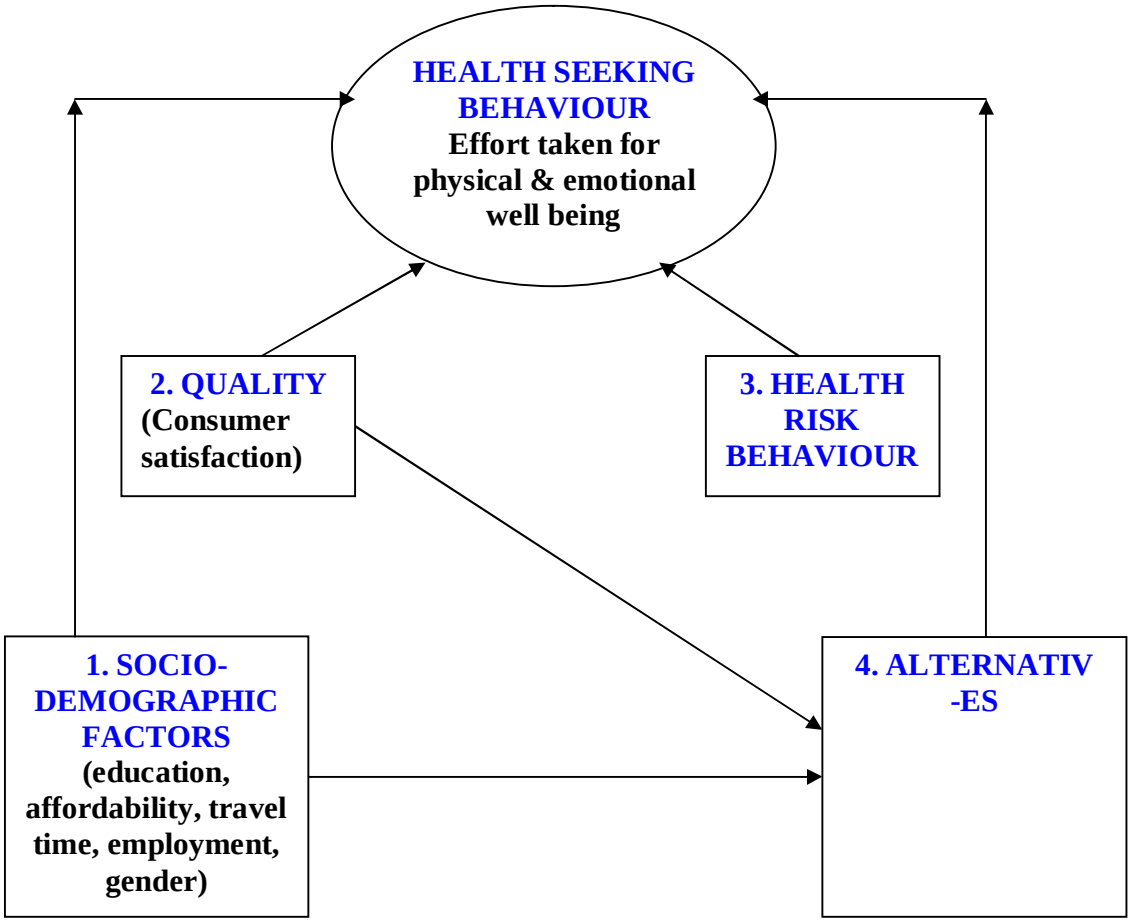



Fig.1. Framework to study Health Seeking Behaviour of an individual.

To capture HSB in our analysis questions were asked related to various aspects of the components (see fig.1.for components) of HSB. We first examine demographic and need characteristics that predispose people to enter the system, such as whether people have a regular source of care, how long they have to wait to see a physician & whether they have a health insurance. We also consider "enabling factors" that facilitate utilization of care. Finally we treat outcome (realized access) like actual utilization of Health Care Services, level of satisfaction with medical care received. A basic framework for the study of HSB, then, may be conceptualized as proceeding from the characteristics of the health care system and of the population at risk (inputs) to the outcomes or outputs: actual utilization of health care services. The interrelations of the variables involved are presented graphically in fig.1. Now for this study, three measures of adequate/inadequate "Health Seeking Behaviour" were used, involving the respondents reporting:

(1) the individual had not visited a physician in the past 3 months,
(2) the individual did not have a regular source (person or place) where they obtained health care,
(3) the individual had any unmet health care needs.

*(The proof of HSB is use of service, not simply the presence of a facility. HSB can, accordingly, be measured by the level of use in relation to "need." One should recognize, however, that clients and professionals evaluate "need" differently. Further, one must distinguish two components in use of service: "initiation" and "continuation." This is because different factors influence each, though any one factor may influence both. It is hardly necessary to emphasize that barriers to a desired HSB are not only financial but also psychological, informational, social, organizational, spatial, temporal, and so on. )*

Individuals who said emergency rooms were their usual source of care were considered to have no regular source of care, as emergency rooms do not generally provide continuity of care. Unmet health care needs were ascertained via several questions: (1) Did the individual need but was unable to get medical care? (2) Was medical care delayed due to cost? (3) Did the individual need dental care, eye check -ups & specs but was unable to get it? (4) Did the individual need prescription medicines but was unable to get them? (5) Did the individual need mental health care but was unable to get it? We report our findings in table.1.

Table.1.Measures of HSB*

| | No. of individuals( % ) |
|---|---|
| C1. Physician visits in past 3 months | 184(50.40%) |
| C2. Has regular source of care | 180(49.31%) |
| C3. Unmet health care needs | 121(33.10%) |

*n=365(total number of respondents)

We define, C2= C1-(emergency services)=regular source of care. C1+C3= % of people who needed health care in some form or the other. C1/(C1+C3)= % of individual who took some effort based on their = 184/(184+121)= 60.32%. Unmet need (C3)has serious bearing on health status/outcome. Now the question arises, “Does unmet need (C3) necessarily imply absence of health services?”

Next we present the description of our four categories of independent variables, viz. (a) Socio-demographic factors (b) quality (c) health risk behaviour (d) choice of alternatives. To begin with the first set of variables we will look into the effect that various socio-demographic factors have on HSB of people. To do this we stratified raw cross tabulation by: age (18-34, 35-64, 65+), sex, caste, employment status. Now we report 3 components of HSB for above demographic characteristics in Table.2.

A carefull analysis reveals that staggering 65% women have unmet health need. Not only this but n(C3 + employed)=29% & n(C3 + unemployed)=49% => C3 is positively related to unemployment. We must note here that out of 29% who fall in the category of (C3+employed) around 53% blamed affordability & 30% blamed self-medication for unmet health needs. We also find the following important facts:

- Caste is not a major barrier to access – other factors more are important (surprising result in a state like Bihar).
- C3+employed+non-affordability+self-medication=16%
- C3+unemployed+non-affordability+self-medication=9.5%

Now we must note the important behavioural aspect emerging from above analysis, viz.

- Self-medication seems to erupt out of something else other than affordability – it might be related to some behavioural aspect.

- Both are important from policy perspective – but self-medication is behavioural & a possible point of mutation. But we need different policies for both – self-medication & affordability.

It is hardly necessary to emphasize that barriers to access are not only financial but also psychological, informational, social, organizational, spatial, temporal, and so on. We now look into this aspect as well. Anderson & Maken [7] have defined access as equitable if demographic characteristics & need explain the use of Health Care Services. But in addition if Social Structure, Health Beliefs, & Enabling Resources explain the use of Health Care Services then it is inequitable access. The basic findings of our survey data are reported in table.4. We find that higher the education lesser is the unmet i.e. C3(grads)<C3(school)<C3(uneducated). At this point we would like to mention that for our analysis we have used affordability as a proxy for income because of factors like incorrect reporting of income. Another problem is the fact that income of people in these areas is a mix of income in cash & kind and for our analysis purpose we want to know out of pocket expenditure capacity rather than assets that an individual owns. Talkin about health insurance we find an almost "Universal non-insurance".Surprising fact is that out of insured, around 67% reported unmet needs.As far as travel time is concerned people do not seem to be bothered too much about this in deciding about seeking health services.(*but we find in later analysis that it is important for some segment of population like women)*

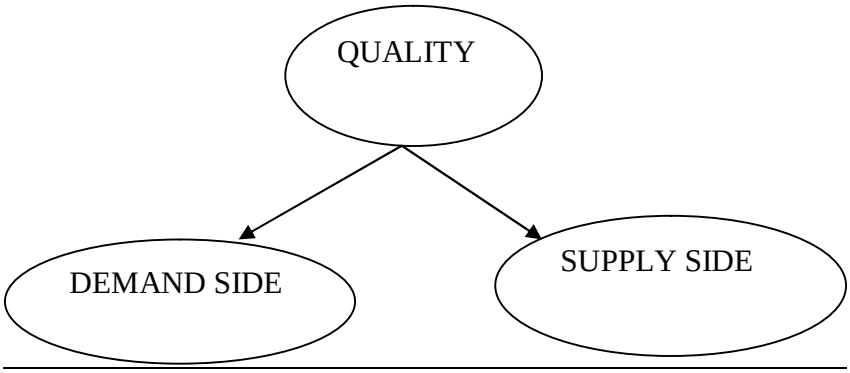
Now we examine the self-reported morbidity by gender and age (table.5.). Self-reported morbidity has been widely used to measure perceived need for health care in both developing & developed countries. It generally reflects a lay view of morbidity rather than that of a medical professional. This is important to find out the perceived 'Health Status' of our population under study. We find that across all age groups met-need is greater for men vis-à-vis women. Alternatively women seem to have higher "unmet health need" vis-à-vis men. This is a disturbing fact particularly when the age group we are talking about is young & reproductive age women!
Now having looked at self reported morbidity across gender & age we move to table.6.which explains the reasons for such high figures of unmet health care needs, especially for women. Here we find that transport hassles are important for women– so role of government is called for.High figures for self-medication & belief that problem would disappear show disturbing behavioural traits– It's Health Risk Behaviour-these are definite points of mutation. Though people said they needed health care but at the same time didn't avail it saying problem would vanish--- is it irrational behaviour in some sense? But the fact remains that "An obvious choice is sometimes like no choice", and under compelling circumstances they may act in a certain undesired way, which necessarily cannot be termed as irrational.

Similarly we also looked at Socio-Demographic factors & people's "CHOICE", using tables – 8.a, 8.b, & 9. And what clearly emerges out of them is a visible dependence on

private Facility. Across all age-groups, women use more of public health facilities.% of young & elder (across gender) using alternatives is surprisingly high.With increasing education levels people substitute public with private health facilities.The surprising result is that the use of alternative shoots up with increasing education levels. Alternatives are used more as a complimentary than a substitute to mainstream treatment.
Socio-demographic factors drive people's choice-- so merely increasing health infrastructure thinking that people would use them is not going to help much. Educating people & motivating them to make informed choices is important. Around 30% of women in their reproductive age, 80% non-graduates use government services in some form– this shows how important the role of government can be in ensuring quality of services delivered!
The kind of pre-natal & post-natal care that a woman is subjected to has a bearing not only on her health but also on the child that is borne. And this in turn affects the health status of the child not only in early growing days but in times to come as well. So we examine this using table.10, whereby we find that around 16% women didn't consult a doctor during pregnancy. Lack of facility(31%), no facility in the vicinity (28%) & being ashamed to consult a doctor (24%) were primary reasons for not consulting a doctor. Here also we find that the behavioural aspect viz.being ashamed, determines the HSB of an individual.

## QUALITY:

This is the first explanatory variable of our model. Just like any other service delivered, health service is also subject to issues of quality & customer (here patient) satisfaction. There is whole lot of literature on various dimensions of overall quality[8] criterion in Health Sector. But one important issue in health services is the fact that, what may seem appealing for population as a whole from policy perspective may be different from what we some times see when we do a microanalysis of individuals involved. And this is what sets quality assessment of health service on a different footing vis-à-vis other services where the researchers often resort to generalizing consumer behaviour for entire class of population using a particular service/services .
Before we enumerate our quality assessment framework a general discussion on the commonly used framework is in order. Most of them examine either supply side or demand side of the quality aspects. In some of the existing literature on quality we find more often than not that the quality of health services delivered (supply side) is surveyed & then based on some prefixed standards (international or country specific) it is compared to evaluate its standard. Also we often find that experts resort to assessment very similar to something like "Mystery Shopping Project" [9] & then develop their notion about some of the quality aspects depending on their survey data. But we go a step back to a more basic question which is that whether a person will even think of going to a particular provider based on his "perceptions", beliefs & health seeking behaviour. In fact we also differ slightly in our analysis vis-à-vis some commonly used methodology in the following way. Since we are trying to model the overall health seeking behaviour of individuals we must always remember the fact that human response




to an identical stimulus is not uniform mainly because of the variability of individual tolerance levels. So rather than comparing the standard of health services delivered to them with some prefixed international/ country specific scale, we first asked each individual to rank different aspects of their perceived quality based on their past few months doctor visit. Then we asked each one of them to report the desired levels of different aspect of quality they would ideally like to have (again in terms of scores). This served as our basic standard or benchmark of what people perceived quality to be against which they often judge the existing quality levels. Now we are in a position to compare the actual & realized quality of services delivered. Fixing a universal benchmark of quality might not serve our purpose because for e.g.; for daily wage earner a long waiting time or frequent revisits might mean huge opportunity cost (he might not get two meals a day if he foregoes his daily earnings) which he might not want to ignore. On the other hand for economically better off person the same quality aspects might not be relatively as important as for a daily wage earner. So in our behavioural model of analysis we lay emphasis on what people get against what they expect or rather perceive to be of "good quality", because ultimately his health seeking behavior will be guided by his perceptions, beliefs & understandings, as we will shortly see in our analysis.

Through quality we are trying to capture the consumer satisfaction levels & the gap in consumer's expected standard of service vis-à-vis the existing standard of various indicators of quality. It must be noted that the way we have used quality indicator in our analysis captures not only the "expected vs actual standard gap in quality" but the severity of quality gap as well. In our logit model we have used our calculated value of quality gap as already described below:

$$Q_i = \frac{P_i( P_i - A_i )^3}{\sum_i P_i}$$

where i = 1,2,3,……21 ( i.e. i = 21 different quality indicators)

$Q_i$ = "deterioration" in quality indicator 'i' based on an individual's perception of expected quality standard

$P_i - A_i$ = gap in quality indicator 'i'

$P_i( P_i - A_i )^3$ = perceived deterioration in quality indicator 'i'

We calculate $\sum_i Q_i$ (i= 1,2,….21) for each individual (j=1,2,…..,365) & call it '$Q^j$'. This continuous variable '$Q^j$' is used as quality explanatory variable in our logit model. It must

be noted here that '$Q_i$' not only captures the magnitude of quality gap but the severity of individual's perceived quality gap.

Though it is a highly subjective issue yet we can interview people & list out the most prominent parameters which patients/people refer to being an indicator of quality for them. Along with above we also use the satisfaction chart (Table.11. & 12) to look at what according to people is the most satisfactory standard for quality indicators like waiting time, interaction with service provider, number of revisits expected, the frequency of revisits etc. All these would ultimately help us define people's perception of quality & how this perception drives people's choice & their overall health seeking behaviour. Form the data we find following facts with regards to quality issues:

- People from ethnic minority have high expectations.
- People from older age group have relatively low desired standards.
- Doctors give more medicines for patients satisfaction----(Jshinu Das-" The Dire Straits of medical practices in India")----but we find that patients might feel the other way round!
- Doctor's Nexus rampant in better-off areas---- not necessarily poor treatment but prolong & costly treatment for sure.
- People seem to be more patient when it comes to visiting a particular doctor of their choice. And in our survey area people get their satisfactory standard of waiting time level with respect to their expectation. So overall we find that waiting time is not an issue in our survey area. People mostly get what they expect & sometimes even more than that as far as waiting time for appointment is concerned. Moreover standard varied with socio-demographic characteristics of population.
    - Patients from ethnic minority have high standards
    - Patients from older age group have low standards.

## HEALTH RISK BEHAVIOUR:

The second explanatory variable in our model is "Health Risk Behaviour". As already mentioned before we have taken nine different indicators (table.14) to assess the risk behaviour of individuals. More the number of indicators an individual adheres to more risky is his behaviour.

## ALTERNATIVE HEALTH CARE FACILITIES:

If we go through the earlier literature (of 1960s through 90s) on health related issues we find that issues of access, quality etc have already been dealt with in an elaborate manner

in some form or the other. But health decision making in the presence of a wide variety of alternative choices as such was not that important a variable in defining the Health Seeking Behaviour of individuals. But we noticed during our research in Bihar that presence of system of healing other than allopathy, viz. homeopathy, ayurveda, electrohomeopathy, acupuncture, yoga, spiritual healing etc. are well marked. Their usage is shooting up not only in both urban areas but rural areas as well. In fact we found people were keen to use these alternatives in those places where more such alternatives existed. And it is more interesting to note that presence of these alternatives is not only "complementary" but in many cases "substitutes" to the use of allopath. Another noteworthy point that popped up in our survey was certain pattern of understanding & definition "Health" itself by people of different age, sex, income category, educational level etc. And this to our surprise turned to be another important reason as to why, how, when & to what extent the alternative health care systems influence the overall Health Seeking Behaviour, Health Decision Making & Health Attitude of individuals. All this in itself is quite compelling to include the alternative health care facilities as an explanatory variable to determine the health seeking behaviour of individuals. According to what we found during survey, this component is most volatile & subjective. It involves whole gamut of issues starting from the basic understanding of concept of health itself by different individuals, which in turn determines the choice of alternative medicines over the regular ones by an individual in need of health services. The main findings have been presented in table15 through 17, which shows that all of these take more time to cure a patient vis-à-vis allopath. Despite this people are increasingly using above alternatives. More prominent in use are homeopathy & yoga, though some or other form of spiritual healing is also catching up. To see why people are increasingly inclined towards yoga & homeopathy, or religious healing we asked people about various reasons for their faith & hence use of these alternatives. We find that its not about time of recovery but more about surety of recovery, less pain, less side-effects, etc which are the main reasons for their choices. Reasons for choice & use of alternatives is also an indicative of what people perceive should be the characteristics of a good health care system & hence is a possible point of mutation for policy makers & health care service providers. Thus we would use this variable for our proposed model to evaluate HSB of an individual.

## 4. RESULTS & FINDINGS FROM THE MODEL:

We have used logit model for the analysis of the framework of Health Seeking Behaviour of individuals. On the onset we are tabulating the variables used in logit model along with their abbreviations (table.1).

Table.1. Variables & their abbreviations:

| Variable Name | Abbreviation |
|---|---|
| 1.years of education | yearsofedu |
| 2.affordability | aff2 |
| 3.employment | emp1 |
| 4.risk | risk |
| 5.years of education*affordability | yearsofedu~f2 |
| 6.years of education*alternative | yearsofedu~e |
| 7.affordability *traveltime | aff*tt2 |

| | |
|---|---|
| 8.affordability*risk | aff2*risk |
| 9.affordability*alternative | aff2altern~e |
| 10.traveltime*region1 | tt2region1 |
| 11.region1 | bhagalpur |
| 12.quality | quality2 |
| 13.alternative | alternative |
| 14.traveltime*gender1 | tt2gender1 |
| 15.travel time | tt2 |

The estimates are reported in the following table.

| Variables | Coefficient | Standard Error | t - stat | P - Value | Confidence interval | | dy/dx |
|---|---|---|---|---|---|---|---|
| Years of Education | 0.181 | 0.131 | 1.380 | 0.168 | -0.076 | 0.439 | 0.023 |
| Affordability | -10.412* | 5.001 | -2.080 | 0.037 | -20.24 | -0.610 | -0.971 |
| Gender | -2.566* | 0.792 | -3.240 | 0.001 | -4.119 | -1.014 | -0.382 |
| Risk | -1.031* | 0.334 | -3.080 | 0.002 | -1.687 | -0.376 | -0.130 |
| Region (Bhagalpur) | 1.099 | 0.861 | 1.280 | 0.202 | -0.588 | 2.786 | 0.133 |
| Quality | -0.001** | 0.000 | -1.880 | 0.061 | -0.001 | 0.000 | 0.000 |
| Alternative Treatment | 23.897*** | 15.818 | 1.510 | 0.131 | -7.106 | 54.90 | 0.634 |
| Years of Education*Affordability | 1.616* | 0.740 | 2.190 | 0.029 | 0.166 | 3.066 | 0.204 |
| yearsofedu~e | -1.784*** | 1.210 | -1.470 | 0.140 | -4.156 | 0.588 | -0.225 |
| Affordability*Travel Time | 11.807* | 4.181 | 2.820 | 0.005 | 3.613 | 20.01 | 0.235 |
| Affordability*Risk | -3.732* | 1.697 | -2.200 | 0.028 | -7.058 | -0.405 | -0.471 |
| Affordability*Alternative Treatment | -2.480 | 3.767 | -0.660 | 0.510 | -9.864 | 4.903 | -0.522 |
| Travel Time*Region | -1.105 | 1.401 | -0.790 | 0.431 | -3.851 | 1.642 | -0.191 |
| Travel Time*Gender | -1.218 | 1.533 | -0.790 | 0.427 | -4.224 | 1.787 | -0.211 |
| Constant | 2.866** | 1.616 | 1.770 | 0.076 | -0.301 | 6.032 | |
| Loglikelihood Value | -39.401 | | | 0.000 | | | |
| Number of Observations | 104 | | | | | | |

Note - *,**,*** represent signifiacnt at 5 %, 10 %, 15 % respectively.

Based on our regression analysis we find that affordability dummy is showing expected negative sign. Unemployment tends to negatively affect the HSB. Risk impacts HSB quite significantly. The interactive variables years*aff2 & aff2*tt2, though statistically significant do not adhere to our expected sign. Deterioration in quality is significant @ 10% & affects HSB negatively as expected. Now, years of education which seems to be an important determinant of HSB has not much of significance in explaining an individuals HSB. Likewise, region1, alternative, yearsofedu*alternative, aff2*alter, tt2*region1, tt2*gender1 dummy affect HSB in the expected direction though are not statistically significant.

## 5. CONCLUSION:

The major focus in this paper has been on identifying factors that help to explain the behavior of people pertaining to the use of health services. The ultimate aim of understanding behavior (which is so very dynamic & volatile) in the health area is an applied one, the problem of persuading people to use health services may appropriately be considered in light of observed behavioral analysis. Material presented earlier indicates that a decision to take a health action is influenced by the individual's state of readiness to behave, by his socially and individually determined beliefs about the efficacy of alternative actions, by psychological barriers to action, by interpersonal influences. Since health decisions are determined by a variety of personal, interpersonal and situational factors, attempts to induce people to change their health actions may successfully be undertaken at various points in the decision process. For instance some variables in our analysis are expected to be possible points of mutation, viz. yearsofeducation, employment, awareness about risk, quality of services delivered, alternatives used by people, travel time etc. We expect that education is a variable of utmost priority in explaining not only health behaviour but overall behaviour of an individual. And despite education being insignificantly positive we feel that education is a multidimensional variable which has a possible spillover effect on both quality & risk behaviour. On one hand “quality education” will impart employment opportunities to individuals, which comes out as a highly significant variable in our analysis & on the other hand it will also impart knowledge to people to minimize their risk behaviour. But we would have to ensure the standard of education delivered to people, especially in EAGA states. At a given risk level deterioration in individual’s affordability level leads to a deterioration in his HSB. Turning to quality, we find that it explains the HSB of individuals to a significant extent, though it has remained somewhat neglected variable in the health sector (& more so in developing regions). It is therefore suggested that to induce people more & more into desired direction of HSB we must focus on quality of services delivered. But this quality standard must be based on the expected standards of the people of the region concerned. Lastly, one of the variables that seems to crucial in determining HSB of people in the present scenario is “alternatives”. Though it is not significant yet it has the expected positive sign. This variable needs further introspection. According to us the positive impact of alternatives could be due to three possible factors. Firstly, as our table also showed earlier, people tend to use these alternatives more as a “complementary service” rather than as “substitutes”. Secondly, people who seek more of these services seem more desperate in terms of putting effort for their well-being.

Thirdly, we know that most of these alternatives used by people are not authentic or certified medical practices & their service delivery mechanism is little ambiguous at times. So as people start using more & more of alternatives they in fact start to suffer multi-damages (in terms of cost, time etc) & this pulls them increasingly towards using more of health facility based on their perceived needs.

Now, which of the above behavioural variables of individual are potential points of mutation, is the question that immediately pops up! No apriori reason may be found to indicate that action directed toward any one of the above behavioural variable of individual will in the long run prove more effective than action directed towards the others. Therefore, action programs to modify behavior could legitimately focus on any one or more of the determinants. Only systematic investigation will demonstrate the conditions under which one or another of the determinants is most susceptible to effective manipulation. Despite the lack of definitive research findings, a few practical considerations may clarify the problem. Ordinarily, to change people is much more difficult than to change their environment (though the latter may itself represent no simple task). Therefore efforts to increase public response should always aim at minimizing the barriers to action, increasing the opportunities to act (which will increase perceived benefits), to maximize convenience etc which are believed to increase public acceptance of health programs. Some simple but important environmental features may be modified with good effect, e.g., minimizing inconvenience by reducing financial costs of services and distances that have to be traveled to obtain them, and setting hours for service that are convenient & improve some of the quality indicators that can be easily & almost costlessly improved upon like *Behaviour of Doctor, Behaviour of other support staff (nurses, reception/registration desk, compounders ,diagnostic staffs etc.), Waiting time* etc.

Moreover, cues may frequently be arranged to trigger responses, e.g., reminders from health services provider (to some extent we find ANM workers engaged in this kind of activity, eg. they make efforts to educate & motivate women to use health centers for child delivery), active role of the mass media. Fairly simple situational changes of the kinds described may well increase the rate of preventive and diagnostic behavior. However, their effect is probably limited, if current views of the determinants of health behavior are at all correct. Probably, after all situational improvements are made, a large number of individuals remain who are not in a state of readiness to act, and, other things being equal, will not. Concerning such people, one must ask whether a direct effort to increase the readiness can be successful and efficient or whether success is more likely through an indirect effort to stimulate the behavior as, for example, through the use of social pressures. In fact the beliefs & subsequent behaviour identified in the model (as well as the use of associated preventive health measures) are not distributed equally in the population. The beliefs and the behavior tend more to be exhibited by upper socioeconomic groups than by lower. Educational programs designed to increase the acceptance of the beliefs as well as the adoption of preventive health behavior should be directed primarily to the poorly educated, to those of lower income and to lower-caste groups. However, the very groups to be reached tend, through a process of self-selection, not to expose themselves to scientific and health information transmitted through various means like mass media.

Nevertheless what clearly comes out of our research is that if we want people to use health services in a productive way then we have to understand their behavioural aspects,

their perceptions & the underlying factors affecting them. And having done this important, though complex & difficult task, we can then proceed on to the suitable health policy formulation exercise.

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## Tables & charts:

Table.2.Components of HSB based on demographic characteristics

| Measures of HSB | sex | | Employment | | caste | |
|---|---|---|---|---|---|---|
| | male | female | yes | no | Upper-caste(=204) | Lower-caste(=97) |
| *C.1physician visits in last 3 months (%)* | 95 | 89 | 89 | 86 | 123 | 61 |
| *C.2.Regular source of care (%)* | 93 | 87 | 87 | 84 | 121(59) | 59(61) |
| *C.3.Unmet health care need (%)* | 42 | 79(65) | 37(29) | 84(49) | 83(40) | 38(39) |

Table.4. HSB- Equitable/ Inequitable!

| Variables | HSB measures C1 | C2 | C3 |
|---|---|---|---|
| Social structure | | | |
| *1.education* | | | |
| *upto 10th* | 48 | 46 | 38 |
| *11th&12th* | 34 | 33 | 21 |
| *graduate* | 96(43) | 95 | 57(26) |
| *no education* | 3 | 3 | 4 |
| *2.employment* | | | |
| *yes* | 89 | 87 | 37 |
| *no* | 86 | 84 | 84 |
| *3.caste* | | | |
| *upper* | 123 | 121 | 83 |
| *lower* | 61 | 59 | 38 |
| Enabling resources | | | |
| *3.affordability (a proxy for income)** | | | |
| *Satisfied* | 118 | 115 | 46 |
| *Not satisfied* | 66 | 65 | 75 |
| *4.health insurance* | | | |
| *yes* | 9 | 9 | 10 |
| *no* | 175 | 171 | 111 |
| *5.travel time** | | | |
| *satisfied* | 179 | 175 | 116 |
| *Not satisfied* | 5 | 5 | 5 |

Table.5. Self reported morbidity by age & gender.

| | men | | | women | | |
|---|---|---|---|---|---|---|
| | 18-34 | 35-64 | 65+ | 18-34 | 35-64 | 65+ |
| *1. Hospitalized in last year(%)* | 1(3.5) | 8(8.5) | 0(0) | 2(3) | 2(2) | 0(0) |
| *2. Physician visits in last 3 months (%)* | 19(68) | 66(70) | 10(67) | 36(55) | 47(51) | 6(54) |
| *3. Regular source of care (%)* | 18(64) | 65(69) | 10(67) | 36(55) | 46(50) | 6(55) |
| *4. Unmet health care needs (%)* | 9(32) | 28(30) | 5(33) | 29(45) | 45(49) | 5(45) |
| *5. Needed medical care(2+4)* | 28 | 94 | 15 | 65 | 92 | 11 |

Note :- *% have been calculated with denominator (5).*

Table.6.Reasons given by respondents about why they did not seek medical assistance by gender & age!

| | men | | | women | | |
|---|---|---|---|---|---|---|
| | 18-34 | 35-64 | 65+ | 18-34 | 35-64 | 65+ |
| *1.**could not afford*** | 3(33) | 18(64) | 1(20) | 20(69) | 30(67) | 3(60) |
| *2.no transport* | 0 | 2(7) | 0 | 7(24) | 14(31) | 1(20) |
| *3.transport not affordable* | 1(11) | 1(3.5) | 0 | 10(34) | 3(7) | 0 |
| *4.drugs & equipment inadequate* | 0 | 2(7) | 0 | 2(7) | 3(7) | 0 |
| *5.skill of Dr.inadequate* | 0 | 1(3.5) | 0 | 3(10) | 2(4) | 0 |
| *6.previous bad experience* | 0 | 1(3.5) | 0 | 1(3) | 3(7) | 0 |
| *7.due to busy work schedule* | 1(11) | 4(14) | 0 | 5(17) | 3(7) | 1(20) |
| *8.**din't know where to go*** | 0 | 5(18) | 1(20) | 3(10) | 4(9) | 1(20) |
| *9.thought not sick enough* | 2(22) | 3(11) | 1(20) | 2(7) | 6(13) | 0 |
| *10.tried but denied health care* | 0 | 0 | 0 | 1(3) | 3(7) | 0 |
| *11.**self-medicated*** | 3(33) | 9(32) | 2(40) | 7(24) | 11(24) | 1(20) |
| *12.believed problem would go away* | 4(45) | 2(7) | 2(40) | 5(17) | 3(7) | 2(40) |
| *13.too far facility* | 0 | 0 | 0 | 2 | 3(7) | 0 |
| *14. others* | 0 | 0 | 0 | 1 | 1(4) | 1(20) |

** Fig. in parentheses show % out of those who reported unmet health needs.*

Socio-Demographic factors & people's "CHOICE":

Table.8.a Type of medical personnel providing care & facility used( age wise)

| | men | | | women | | |
|---|---|---|---|---|---|---|
| | 18-34 | 35-64 | 65+ | 18-34 | 35-64 | 65+ |
| *type of medical personnel providing care* | | | | | | |
| *1.private doctor* | 17(89) | 51(77) | 6(60) | 22(61) | 35(74) | 3(50) |
| *2.government doctor* | 2(11) | 15(23) | 4(40) | 14(39) | 12(26) | 3(50) |

| | | | | | | |
|---|---|---|---|---|---|---|
| *Alternatives as complementary!* | | | | | | |
| *3. Used services of alternative healers along with either or both of above!* | *7(24)* | 15(23) | 5(50) | 19(53) | 9(19) | 4(67) |

*Note: fig in parentheses show % of individual out of those who visited a doctor in 3 months prior to this survey.*

Table.8.b Type of medical personnel providing care & facility used( education wise)

| | Education Level | | |
|---|---|---|---|
| | Upto10th | Upto12th | Graduate>= |
| *type of medical personnel providing care* | | | |
| *1.private doctor* | 30(62.5) | 20(59) | 79(82) |
| *2.government doctor* | 18(37.5) | 14(41) | 17(18) |
| *Alternatives as complementary!* | | | |
| *3. Used services of alternative healers along with either or both of above!* | 6(12.5) | 6(18) | 47(49) |

*Note: fig in parentheses show % of individual out of those who visited a doctor in 3 months prior to this survey.*

Table.9. Type of medical personnel providing care & facility used( caste wise)

| | CASTE | |
|---|---|---|
| | Upper Caste | Lower Caste |
| *type of medical personnel providing care* | | |
| *1.private doctor* | 95(77) | 39(64) |
| *2.government doctor* | 28(23) | 22(36) |
| *Alternatives as complementary!* | | |
| *3. Used services of alternative healers along with either or both of above!* | 48(39) | 11(18) |

*Note: fig in parentheses show % of individual out of those who visited a doctor in 3 months prior to this survey.*

Table.10. Use of pre-natal care amongst ever-married women aged 16-64(%).

| Use of pre-natal care | No. of women (%) |
|---|---|
| Consulted doctor during last pregnancy? | |
| Yes | 156(84) |
| No | 29(16) |
| Of those that didn't: | |
| *1.didn't know about the services* | 8(28) |
| *2.too far* | 5(17) |
| *3.Not available* | 9(31) |
| *4.Couldn't afford* | 0(0) |
| *5.Ashamed* | 7(24) |

*Note: fig in parentheses show %.*

## List of most prominent parameters of Quality reported by respondents:

In our survey we ask people to rate the following on a scale of 1-10 (in order of increasing importance[15] )

1. *Doctor's Qualification*
2. *Doctor's sex*
3. *Doctor's Age*
4. *Health Infrastructure with the provider*
5. *Interaction time with Doctor*
6. *Behaviour of Doctor*
7. *Behaviour of other support staff( nurses, reception/registration*
8. *desk, compounders ,diagnostic staffs etc.)*
9. *Waiting time*
10. *Diagnosis*
11. *Quantity of medicines prescribed*
12. *Expected no of revisits*
13. *No of past revisits*
14. *Past experience with the same provider*
15. *Cost borne(financial)*

Cost in terms of:

16. *Pain*
17. *Risk of side effects*
18. *Period of recovery*
19. *Opportunity cost of treatment*
20. *Equipments & technology used by provider*
21. *Popularity of provider (as heard from others)*

Table.11.(Satisfaction) % not completely satisfied with different aspects of recent medical visits [12].

| ASPECTS | Population (age-wise) | | |
|---|---|---|---|
| | 18-34(114) | 35-64(211) | 65+(41) |
| *1.travel time (60)* | 22(19) | 29(14) | 9(22) |
| *2.interaction time with doctor(66)* | 24(21) | 36(17) | 6(15) |
| *3.office waiting time(118)* | 35(31) | 67(32) | 16(39) |
| *4.information received(113)* | 32(28) | 69(33) | 12(29) |
| *5.out of pocket cost(85)* | 23(20) | 46(22) | 16(39) |
| *6.quality(144)* | 46(40) | 78(37) | 20(49) |
| *7.overall visit(147)* | 44(39) | 83(40) | 20(49) |

# PATIENT SATISFACTION CHART

## Actual & Expected Value Chart

Table.12. Proportion of patients satisfied with access & continuity in general practice

12.a. Waiting time for appointment with a particular doctor?

| Waiting time for appointment with a particular doctor: | | |
|---|---|---|
| | satisfied(actual) | satisfied(threshold) |
| *1. Same Day* | 329 | 112 |
| *2. Next Day* | 26 | 137 |
| *3. 2/3days* | 0 | 60 |
| *4. 4/5days* | 0 | 23 |
| *5. 5days* | 0 | 33 |

12.b.Waiting time for appointment with any doctor?

| Waiting time for appointment with any doctor: | | |
|---|---|---|
| | satisfied(actual) | satisfied(threshold) |
| *1. Same Day* | 361 | 285 |
| *2. Next Day* | 4 | 68 |
| *3. 2/3days* | 0 | 10 |
| *4. 4/5days* | 0 | 0 |
| *5. 5days* | 0 | 0 |

12.c. waiting time for consultation to begin?(minutes)

| Waiting time(min) for consultation to begin | | |
|---|---|---|
| | % satisfied(actual) | % satisfied(threshold) |
| *1. 0* | 76 | 11 |
| *2. <5* | 41 | 40 |
| *3. 6--10* | 49 | 71 |
| *4. 11--20* | 50 | 95 |
| *5. 21--30* | 64 | 80 |
| *6. 31--45* | 66 | 65 |
| *7. 45>* | 17 | 3 |

12.d. Continuity for seeing the same doctor ( answer in yes/no)

| Continuity for seeing the same doctor(actual) | Yes |
|---|---|
| *1. Always* | 31 |
| *2. Almost always* | 80 |
| *3. A lot of time* | 59 |
| *4. Some time* | 59 |
| *5. Almost Never* | 55 |
| *6. Never* | 81 |

12.e. Travel time to reach the doctor [17]

| Travel time (min) | | |
|---|---|---|
| | satisfied(actual) | satisfied(expected) |
| *1. 0--15min* | 11 | 20 |
| *2. 15--30min* | 118 | 152 |
| *3. 30min--1hr* | 134 | 125 |
| *4. 1hr--2hr* | 74 | 58 |
| *5. 2hr* | 28 | 10 |

Table.14.Health Risk Behaviour of area under study.

| VARIABLES SHOWING HEALTH RISK BEHAVIOUR | men | | | women | | |
|---|---|---|---|---|---|---|
| | 18-34 | 35-64 | 65+ | 18-34 | 35-64 | 65+ |
| *1.not using purified water(Q25f)* | 16 | 59 | 8 | 38 | 44 | 7 |
| *2.believed problem would go away* | 4 | 2 | 2 | 5 | 3 | 2 |
| *3.didn't know where to go* | 0 | 5 | 1 | 3 | 4 | 1 |
| *4.improper food storage habits (q26,27f)* | 13 | 58 | 8 | 33 | 41 | 5 |
| *5.improper garbage disposal(q35f)* | 30 | 73 | 20 | 52 | 57 | 7 |
| *6.medication*without consulting a doctor(q12.11m)* | 3 | 9 | 2 | 7 | 11 | 1 |
| *7.any kind of addictive substance**( see book1)* | 12 | 49 | 12 | 4 | 6 | 1 |
| *8.Visit to spiritual healer* | *2* | *4* | 2 | 1 | 2 | 0 |
| *9.Visit to religious healer* | *0* | *6* | 0 | 12 | 8 | 1 |

**It includes different forms of self-medication like consuming medicines kept at home, buying over the counter medicines etc.*

***We asked the individuals if they were consuming some addictive. (This excludes tea, coffee)*

Table.15.Pattern of preferred options of health decision making ( age-specific):

| | MEN | | | WOMEN | | |
|---|---|---|---|---|---|---|
| | 18-34 | 35-64 | 65+ | 18-34 | 35-64 | 65+ |
| *1.Visit OPD* | 4.35 | 4.05 | 5.04 | 5.42 | 5.71 | 4.57 |
| *2.See a Doctor* | 1.421 | 1.39 | 1.6 | 1.52 | 1.8 | 1.26 |
| *3.Buy over the counter medicine* | 3.368 | 4.68 | 4.92 | 5.17 | 5.07 | 5.46 |
| *4.take medicine kept at home* | 5.710 | 4.38 | 4.12 | 4.63 | 4.19 | 3.92 |
| *5.home remedies* | 2.621 | 2.54 | 2.72 | 2.97 | 3.70 | 2.86 |
| *6.Alternative Medicine system* | 22 | 69 | 16 | 26 | 35 | 8 |

Table.16.a.What alternative medication ( based on education)???

| | MEN | | | WOMEN | | |
|---|---|---|---|---|---|---|
| Type Of Practioner | 10th | 12th | graduate | 10th | 12th | graduate |
| *1.Massage therapist* | *1* | *0* | 0 | 0 | 0 | 0 |
| *2.Acupuncturist* | *0* | *3* | 14 | 5 | 3 | 3 |
| *3.Homeopathy* | *5* | *6* | 56 | 16 | 6 | 19 |
| *4.Electrohomeopathy* | *1* | *1* | 1 | 2 | 0 | 1 |
| *5.Herbalist* | *1* | *5* | 32 | 11 | 4 | 8 |
| *6.Aromatherapist* | *0* | *0* | 0 | 0 | 0 | 0 |
| *7.Traditional Chinese Medicine* | 0 | 0 | 0 | 0 | 0 | 0 |
| *8.Spiritual healer* | *0* | *0* | 7 | 0 | 0 | 3 |
| *9.Unani* | *0* | *0* | 1 | 0 | 1 | 0 |
| *10.Religious Healing* | *0* | *1* | 3 | 10 | 6 | 5 |
| *11.Yoga** | *6* | *10* | 60 | 11 | 3 | 27 |

Note: *People in our survey area include most physical exercises (even walking), a normal home massage in some painful body part etc as a part of yoga. This might not be the pure form of yoga if examined technically. Nevertheless we included all activities in Yoga as people reported to us.*

Table.16.b.What alternative medication ( based on age)???

| | MEN | | | WOMEN | | |
|---|---|---|---|---|---|---|
| Type Of Practioner | 18-34 | 35-64 | 65+ | 18-34 | 35-64 | 65+ |
| *1.Massage therapist* | *0* | *1* | 0 | 0 | 0 | 0 |
| *2.Acupuncturist* | *5* | *10* | 3 | 4 | 5 | 2 |
| *3.Homeopathy* | *16* | *43* | 10 | 15 | 23 | 5 |
| *4.Electrohomeopathy* | *2* | *2* | 0 | 1 | 2 | 1 |
| *5.Herbalist* | *10* | *26* | 4 | 12 | 8 | 3 |
| *6.Aromatherapist* | *0* | *0* | 0 | 0 | 0 | 0 |
| *7.Traditional Chinese* | 0 | 0 | 0 | 0 | 0 | 0 |

| | | | | | | |
|---|---|---|---|---|---|---|
| *Medicine* | | | | | | |
| *8.Spiritual healer* | *2* | *4* | 2 | 1 | 2 | 0 |
| *9.Unani* | *0* | *1* | 0 | 0 | 1 | 0 |
| *10.Religious Healing* | *0* | *6* | 0 | 12 | 8 | 1 |
| *11.Yoga* | *16* | *50* | 11 | 15 | 21 | 6 |

Table.17. Why Homeopathy & Yoga?

| WHY HOMEOPATHY & YOGA? | % OF POPULATION |
|---|---|
| *1.they give us more time* | 45 |
| *2.can treat cases which regular Dr.is unable to treat* | 44 |
| *3.they offer special advices* | 39 |
| *4.referred by my Dr.* | 12 |
| *5.referred by my friend/relative* | 44 |
| *6.cheaper services* | 20 |
| *7.close to my home* | 15 |
| *8.less pain-full* | 33 |
| *9.low risk of side-effects* | 61 |
| *10.offer permanent cure* | 51 |
| *11.diagnosis takes less time & money* | 46 |
| *12.heard a lot of success stories* | 27 |
| *13.ineffective current treatment* | 27 |

## NOTES:

[1]. Anderson et.al

[2].In our analysis we didn't go for a formal health status evaluation of individuals. Rather we wanted to see how individuals behave in seeking health services given their perceived health status, eg. Unless an individual feels his health status is dwindling & he is sick, he will not seek the services of a doctor!

[3]. They define health behaviour as "any activity undertaken by a person who believes himself to be healthy, for the purpose of preventing disease or detecting disease in an asymptomatic stage." Illness behaviour is defined as "any activity undertaken by a person who feels ill, for the purpose of defining the state of his health and of discovering suitable remedy." Finally, sick-role behaviour "is the activity undertaken by those who consider themselves ill for the purpose of getting well"

[4]. Mechanic, D. Public Expectations and Health Care: Essays on the Changing Organization of Health Services. New York: Wiley, 1972.

[5]. Shortell, S. Patterns of medical care: Issues of access, cost and continuity. Paper presented at Workshop, Center for Health Administration Studies, University of Chicago, April 5, 1973.

[6]. Many Health behavior studies have used this kind of theory like Dr.Irwin M. Rosenstock etc.

[7]. Donabedian, A. Models for organizing the delivery of personal health services and criteria for evaluating them. AMilbank Mem. Fund Quart. October1972.

[8]. Many health care experts in recent times have argued that quality is a multidimensional concept. Neither highly qualified doctor (supply side) nor patient's satisfaction alone based on interaction with doctor gives a complete frame of quality. Ultimate health outcome is the best indicator of "Quality" of services provided/received. Factors determining health outcome during the course of treatment (1)Doctor's qualification( indicator of competence),(2) effort, (3) diagnosis (4) treatment prescribed (5) kinds of medicines purchased by the patients (6).complementary factors ,like-water quality, air pollution, sanitation, nutrition. (7).Whether patient changes doctor frequently in course of his treatment (8).Existence of any common endemic diseases, or genetic disorder in the area under study. We must account for these factors to get any holistic measure of "Quality" aspect of services provided.

[9]. Mystery shopping is often used in quality assessment of various kinds of services providers like retail banking etc

## REFERENCES:


1. Jishnu Das, Jeffrey Hammer, Kenneth Leonard:Policy ReseaRch WoRking PaPeR-4501:"The Quality of Medical Advice in Low-Income Countries."

2. Das, Jishnu and Jeffrey Hammer. 2004. "Strained Mercy: The Quality of Medical Care in Delhi." Economic and Political Weekly 39 (9): 951-965

3. Das, Jishnu and Jeffrey Hammer. 2005. "Which Doctor? Combining Vignettes and Item Response to Measure Clinical Competence." Journal of Development Economics (forthcoming).

4. Das, Jishnu and Jeffrey Hammer. 2005b. "Location, Location, Location: Residence, Wealth and the Quality of Medical Care in Delhi, India." World Bank, Washington, D.C. Processed.

5. Das, Jishnu and Thomas Pave Sohnesen. 2005. "Practice-Quality Variation in Paraguay". Development Research Group, World Bank, Washington D.C. Processed.

6. Das, Jishnu, and Carolina Snchez-Pramo.2003. "Short but not Sweet: New Evidence on Short Duration Morbidities from India." Policy Research Working Paper 2971. World Bank, Development Research Group, Washington, D.C.

7. Alok Mukhopadhyay "Public-Private Partnership in the Health Sector in India"

8. Banerjee, Abhijit, Angus Deaton and Esther Duflo. 2004. "Wealth, Health and Health Services in Rural Rajasthan." American Economic Review, Papers and Proceedings 94(2): 326-330.

9.Catherine Pope, Nick Mays, “Reaching the parts other methods cannot reach: an introduction to qualitative methods in health and health services research.”

10. Anita L.Stewart, Phd, Ron D. Hays, Phd, and John E. Ware, Jr., Phd Medical Care July 1988, Vol. 26, No. 7 Communication “The MOS Short-form General Health Survey Reliability and Validity in a Patient Population”

11. Maria Goddard “Access to health care services – an English policy perspective.”

12. Census of India 2001: as available on line.

13. WHO Survey on Health and Health System Responsiveness

14. Peter Bower, Martin Roland, John Campbell, Nicola Mead, “Setting standards based on patients' views on access and continuity”: secondary analysis of data from the general practice assessment survey.

15. Jonathan Mant, deptt. of primary care & general practice, Medical School, University of Birmingham,UK), “Process versus outcome indicators in the assessment of quality of health care.”

16. James Raftery, Health Services Management Centre, School of
Public Policy, University of Birmingham, Birmingham, “NICE: faster access to modern treatments? Analysis of guidance on health technologies.”

17. Ronald M. Anderson, University of California at Los Angeles, Journal of health & social behaviour, “Revisiting the behavioural model & access to medical care: Does it matter?”.

18. Donald.M.Berwick, MD, “Health Services Research and Quality of Care Assignments for the 1990s”.

19. Jane Falkingham, Department of Social Statistics, University of Southampton, Southampton SO17 1BJ, UK, “Poverty, out-of-pocket payments and access to health care:evidence fromTajikistan”.

20.Hugh R. Waters,P.O. Box 1200, Sanger, TX 76266, USA, “Measuring equity in access to health care.”

21. R.Burciaga Valdez, Phd Aida Giachello, Phd Helen Rodriguez-Trias, Mdpaula Gomez Castulo De La Rocha, Jd, “Improving Access to Health Care in Latino Communities.”

22. R J Maxwell British Medical Journal Volume 288 12 May 1984, “Perspectives in NHS Management Quality assessment in health.”

23. Trevor Sheldon, Quality in Health Care 1998;7(Suppl):S45–S50, “Promoting health care quality: what role performance indicators?”

24. Jun Gao, Shenglan Tang, Rachel Tolhurst, & Keoking Rao

Centre for health statistics & information, Ministry of health, Beijing, China & Liverpool school of tropical Medicine,Liverpool ,UK, “Changing accesss to health services in urban China: Implications for equity.”

25. Allison L. Diamant, MD, MSHS; Cheryl Wold, MPH; Karen Spritzer, BA; Lillian Gelberg, MD, MSPH, “Health Behaviors, Health Status, and Access to and Use of Health Care A Population-Based Study of Lesbian, Bisexual, and Heterosexual Women.”
26. Morris Weinberger, Phd, Eugenez.Oddone, M.D, M.H.Sc, & Williamg. Henderson, Phd., for The Veterans Affairs Cooperative Study Group on Promary Care & Hospital Admission. Does increased access to primary care reduce hospital readmissions? 1441, Special Article: “Does increased access to primary care reduce hospital readmissions?”

27. Irwin M. Rosenstock, “ Why people use health services?”

28. Ronald M. Andersen, PhD Aida L. Giachello, Ma Lu Ann Aday, PhD, “Access of Hispanics to Health Care and Cuts in Services”: A State-of-the-Art Overview.

29. John Fortney, Ph.D, Centers for Mental Healthcare Research, Department of Psychiatry, University of Arkansas for Medical Sciences and HSR&D Center for Mental Healthcare and Outcomes Research, Little Rock VA Medical Center Kathryn Rost, Ph.D, Centers for Mental Healthcare Research, Department of Psychiatry, University of Arkansas for Medical Sciences, James Warren , MPA
Centers for Mental Healthcare Research, Department of Psychiatry, University of Arkansas for Medical Sciences ,Received September 1, 1998; revised February 23, 2000; accepted February 23, 2000.
Health Services & Outcomes Research Methodology1:2 (2000): 173±184
# 2000 Kluwer Academic Publishers, Boston. Manufactured in The Netherlands.
“Comparing Alternative Methods of Measuring Geographic Access to Health Services.”

30. Michael L. Booth, Phd, Diana Bernard, M.P.H, Susan Quine, M.P.H, Phd, Melissa S.Kang, M.D.M.C.H, Tim Usherwood, M.D, B.S, Garth Alperstein, M.D, M.P.h, and David L.Bennett, M.B.B.S., Journal Of Adolescent Health 2004;34:97–103 International Health Brief, “Access to Health Care Among Australian Adolescents Young People’s Perspectives and Their Sociodemographic Distribution”
31. Michael S. Hendryx, Melissa M. Ahern, Nicholas P. Lovrich, and
Arthur H. McCurdy, “Access to Health Care and Community Social Capital.”

32. Katherine E. Heck and Jennifer D. Parker, “Family Structure, Socioeconomic Status, and Access to Health Care for Children.”

33. Ronald M. Andersen, Allan McCutcheon, Lu Ann Aday, Grace Y. Chiu, Ralph Bell, “Exploring Dimensions of Access to Medical Care.”

34. Lu Ann Aday and Ronald Andersen, “A Framework for the Study of Access
to Medical Care.”

35. Charles M. Wylie, M.D., Dr.P.H.“The Definition and Measurementof Health and Disease.”

35. Donald L. Patrick, Phd, MSPH, and Yen-Pin Chiang, Phdt Medical Care Volume 38, Number 9, Supplement II, pp II-14-II-25 ?2000 Lippincott Williams & Wilkins, Inc. “Measurement of Health Outcomes in Treatment Effectiveness Evaluations Conceptual and Methodological Challenges”

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