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The Demand for Consultancy and Clinical Services for the Treatment of Illness among General Caste Group of Household in North Twenty Four District of West Bengal, India

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Abstract: *The present paper seeks to examine the determinants of demand for consultancy of health personnel and clinical services for health care of General Caste households of the north twenty four district of West Bengal, India. To do this per capita health related expenditure on consultancy and clinical services has been taken as a proxy of ex-post demand for consultancy and clinical services. Total 178 General Caste households are taken as a sample size of Rampur Village of Sandeshkhali II development block of north 24 parganas district of West Bengal. The results revealed that per capita operated land, percentage of vulnerable members of a family, total number of visits to traditional medical supplier, total family size, illness of family head at the time of survey, decision to visit Quake for health facility by households, decision to visit private medical practitioner by households and individual or households are protected by health insurance are statistically significant determinants of demand for consultancy and clinical services.*

Keywords: *Demand for Consultancy& Clinical Services, General Caste, Ex-Post Demand, North 24 Parganas, and West Bengal.*

I. Introduction

The per capita total health related expenditure on consultancy and clinical tests for prognosis of disease may be considered to be a good proxy of demand for consultancy and clinical test. The present study is to determine the determinants of per capita health related expenditure on consultancy and clinical service for general cast households in Rampur Village of Sandeshkhali II Community Development Block of North twenty four District of West Bengal, India. For this purpose I have run step wide robust multiple regression model by taken Consultancy and Clinical test as a dependent variable with several explanatory variables which specified in our model. Before running regression I have checked the pair wide correlation coefficient among the explanatory variables to detect whether the presence or absence of sever multicollinierity.

II. Perspective of the Study

Health is essentially a private good bearing the characteristics of a merit good to the society from the welfare point of view. Thus public provisioning of health infrastructure and services become necessary in the context of a backward or developing economy. The significance of health needs to be examined both from the economic and social dimensions. From a broad development perspective, health is directly linked with requirements of economic growth as well as upliftment of social indicators to achieve enhanced levels of living for the population. The approaches by Moris (1979) and United Nations Development Programme (UNDP, 1990**)** have clearly assigned a key role to health indicators in assessing the economic development performance.

There a major breakthrough was the introduction of Human Development Index (HDI) by the United Nations (UN), mainly the contribution of Mahbubul Haque (HDR, 1990).The HDI was a conscious rejection of income centric indicators of poverty and development such that the emphasis was shifted to non-income dimensions of development of which the health parameter constituted a major part. In particular, focus was made on the health structure of the population including longevity, overall mortality, infant mortality, maternal mortality and morbidity; access to health services and nutritional status. This focus continued throughout 1990s and the notion of human development was succeeded by human poverty owing mainly to the contributions of A.K. Sen. The human poverty index (HPI) was subsequently introduced to incorporate such health indicators as improved water sources and undernourishment of children aged five (5) or below (HDR, 1997). Even the Indian Planning Commission followed suit and adopted measures of human development (NHDR, 2001) to highlight on the importance of social indicators of human development including health and education. The UNDP has also developed a Capability Poverty Measure (CPM) based on health indicators such as the percentage of underweight children below five years of age and percentage of births unattained by trained health professionals (HDR, 1996).

In addition to recognition of good health as an essential component of development in comprehensive terms, the significance of health has also been widely recognized from the view point of economics of growth and development of human resources. The notion of human capital of a country directly corresponds to the quality consideration of health of its people in general and labour force in particular. The state of health of workforce has a strong influence on labour productivity and future growth prospects utilizing labour as a primary input. A number of modern models of economic growth have highlighted strongly on the development of human capital through increased level of investment in the same (Lucus, 1988; Romar, 1986 and Solow, 1997).

However social and welfare implications of health entitlement or deprivation seem to be even more important than purely economic considerations surrounding the issue of public health and distribution. Health constitutes a very significant aspect of social security both in terms of 'protection' and 'promotion'. The former is concerned with preventing a decline in health standard in general and in the basic condition of living in particular. The problem of 'protection' is paramount in the context of epidemic and endemic preventions and also in dealing with other kinds of sudden health crisis in backward poor society with unequal income and wealth distribution. This contrasts with the object of enhancing of the normal living condition and dealing with regular and often persistent deprivation of health. The promotional aspect of health security in a sense is more ambitious in the aspiration to eradicate health problems that have survived hundreds of years among the poor masses in rural society of the third world countries.

Both the above aspects of health security justify the need for public intervention. Given the general observation that the market-oriented economic growth process fails to generate any 'trickle-down effect' to take care of the people, the ground for state intervention and provisioning of health becomes even stronger. However income entitlements certainly do matter in case of enhancing access to health services at the household level but under the condition of vulnerability of poor and weaker sections and fragile living standards public intervention becomes the only effective mechanism to deal with the problem of health deprivation. In this context growth-mediated health security needs to be supplement with supported security (Dreze and Sen, 1989). It has been aptly argued that timely and executed public provision of health and social indicators of quality of life can be achieved through a reduction in health risk even in the absence of any perceptible rate of economic growth (Sen, 1985).

III. Objective of the Study

In view of the above consideration of health the main objective of the present study is to determine the factors which are responsible for the ex-post demand for consultancy and clinical services.

IV. Data, Methodology and Econometric Model

First of all I choose Sandeshkhali II Community Development Block randomly from 22 Community Development Block in West Bengal. Then Village Rampur among all villages in Sandeshkhali Development Block is chosen purposely as this village is General Caste dominated village instated of Scheduled Caste and Scheduled Tribe dominated village. This village is inhabited by approximately 700 households. Of these households different sections are constituted by General Caste Hindu, Muslim, Scheduled Caste and Scheduled Tribe. Given the variable in social composition of the village 178 General Caste Hindu have chosen by random sample without replacement which constitute 25.57 % of universe. The primary data is collected throughout the year of 2013-14.

The Econometrics Model of PCHECC:

The linear multiple regression of the per capita health expenditure on consultancy &clinical tests is defined as follows.

$$\mathbf{PCHECC_i = \delta 1 + \delta_2 PCOL_{2i} + \delta_3 PCFI_{3i} + \delta_4 TFS_{4i} + \delta_5 PVMF_{5i} + \delta_6 PCL_{6i} + \delta_7 PU\_5C7_i + \delta_8 FMR_{8i} + \delta_9 PMSSD_{9i} + \delta_{10} TNVTMS_{10i} + \delta_{11} PEPF_{11i} + \delta_{12} TFS_{12i} + \delta_{13} D_{1i} + \delta_{14} D_{2i} + \delta_{15} D_{3i} + \delta_{16} D_{4i} + \delta_{17} D_{5i} + \delta_{18} D_{6i} + \delta_{19} D_{7i} + \delta 20 D_{8i} + \delta_{21} D_{8i} \quad \delta_{21} D_{9i} + \quad \delta_{22} D_{10i} + \quad \delta_{23} D_{11i} + \delta_{24} D_{12i} + \delta_{25} D_{13i} + \delta_{26} D_{14i} + E_i} \ldots\ldots \quad (1)$$

Where,
PCOL: Per Capita Operated Land
PCFI: Per Capita Family Income
AFI: Annual Family Income
PVMF: Percentage of Vulnerable Members in family of ages 60 years or above
PCL: Percentage of Children less than or equal to14 years of age
PU_5C: Percentage of Under- Five Children
FMR: Female Male Ratio

PMSSD: Percentage of Members Suffering from Serious/Chronic Disease
TNVTMS: Total Number of visits to Traditional / Local/Untrained Medical Service Providers
TFS: Total family size
PEPF: Percentage of earning persons in family.

D_{1i} = Education dummy variable
= {1, if education level of households is above or equal to Higher Secondary 0, otherwise}

D_{2i} = Occupation Dummy
= {1, if non agriculture occupation 0, otherwise}

D_{3i} =Sex Dummy Variable
= {1, if household's head is male, if household's head is female}

D_{4i}= Illness Dummy Variable
= {1, if household's head has been suffering from any series illness at the time of Survey
=0, otherwise}

D_{5i}=Decisions to Visit Quake For Health Facility
= {1, if Individual or household went to Quake =0,
Otherwise}
D_{6i} = Decision to Visit Private Registered Practitioner Dummy
= {1, if individual or household went To Private Registered Practitioner 0, otherwise}

D_{7i} =Public Health Facility Dummy Variable
= {1, if person or household went to public healthcare centre or hospital
0, otherwise}

D_{8i} =Health Insurance Dummy
= {1, if individual or household Is Protected or Insured By Health Insurance Policy 0, otherwise}

D_{9i} =Old Aged Dummy
= {1, If Age of Any Family Member Is Greater Than or Equal to 60 0, otherwise}

D_{10i} = Under Five Children Dummy Variable
= {1, if in a Family Have A under Five Children 0, otherwise}

D_{11i} =Under Fourteen Child Dummy Variable
= {1, if family have Children of Age less than five years 0, otherwise}

D_{12i} =Health Perception of Household about Public Health Care Dummy
= {1, If Households Opinion about Public Health Service Is Good 0, otherwise}

D_{13i} =Health Status Dummy Variable
= {1, if family have a good health status 0, otherwise}

D_{14i} = Loan Taking Behaviour Dummy Variable
= {1, if households have take loan 0, otherwise}

For the purpose of estimation I have applied Ordinary Least Square (OLS) technique.

V. Hypothesis

It is natural that when a person or household member visited heath care centre to take health care facilities under the situation of their illness, the cost of treatment they have to bear for the consultancy fees of doctors or health personnel as well as for the clinical tests of the prognosis of diseases. There are several factors that would have effect on the per capita health related expenditure on consultancy fees of doctors or heath personnel. In this section let us set some hypothesizes that we like to test empirically in district of North Twenty Four Parganas on the basic of our sample collected during 2013-14. The relevant econometrics mode of the

determinants of per capita health related expenditure on doctor's consultancy fees and clinical test is defined earlier by equation.

Hypothesis 1

The per capita operated land (PCOL) is likely to have a positive impact on the per capita health expenditure on consultancy and clinical tests. It is expected that the increase in PCOL may increase the income of the households. As a result of an increase in income the probability of visiting healthcare centres or rate of utilization of healthcare service and cares increase. We want to test the null hypothesis $H_0 : \delta_2 = 0$ against alternative hypothesis $H_1 : \delta_2 > 0$.

Hypothesis 2

It is expected that the per capita family income has a positive impact on PCHECC. We want to test the null hypothesis $H_0 : \delta_3 = 0$ against alternative hypothesis $H_1 : \delta_3 > 0$.

Hypothesis 3

It is likely that annual family income may have a positive impact on PCHECC, since increase in annual family income may improve the ability to pay the consultancy fees of health personnel (doctors) as result they shall be able to afford for cost of different clinical tests suggested by doctors. We want to test the null hypothesis $H_0 : \delta_4 = 0$ against alternative hypothesis $H_1 : \delta_4 > 0$.

Hypothesis 4

It is expected that the persons in the age group sixty and above are more likely to be vulnerable in different diseases than in the age group less than sixty. So the probability of visiting health centres of this age group of people in general high which may increase in health expenditure on consultancy and clinical tests. We want to test the null hypothesis $H_0 : \delta_5 = 0$ against alternative hypothesis $H_1 : \delta_5 > 0$.

Hypothesis 5

The percentage of children of a family ageing less than or equal to fourteen years (PCL) is an important determinant in PCHECC. Since this age group of children may be vulnerable due to low immunity. It is expected that they have to go healthcare centres. Therefore there are some costs of treatment in connection with consultancy fees and clinical tests. Therefore, PCL is likely to have positive impact on PCHECC. We want to test the null hypothesis $H_0 : \delta_6 = 0$ against alternative hypothesis $H_1 : \delta_6 > 0$.

Hypothesis 6

It is expected that there is a direct relationship between the increase in the percentage of under-five children and the per capita health related expenditure on consultancy and clinical tests. We want to test the null hypothesis $H_0 : \delta_7 = 0$ against alternative hypothesis $H_1 : \delta_7 > 0$.

Hypothesis 7

The female family members are less likely to visit healthcare centre for the utilization of healthcare and services than their male counterparts, because of the sex or gender discrimination against females in our country. Therefore, FMR is likely to have negative effect on PCHECC. We want to test the null hypothesis H_0: $\delta_8 = 0$ against alternative hypothesis H1: $\delta_8 < 0$.

Hypothesis 8

The PMSSD is likely to have a positive impact on PCHECC. We want to test the null hypothesis H_0: $\delta_9 = 0$ against alternative hypothesis H1: $\delta_9 > 0$.

Hypothesis 9

The total number of visits to traditional medical service (TNVTMS) providers is expected to have a positive effect on PCHECC as it will increase the medical treatment cost, consultancy fees and clinical tests. We want to test the null hypothesis $H_0 : \delta_{10} = 0$ against alternative hypothesis $H_1 : \delta_{10} > 0$.

Hypothesis 10

The persons who completed Higher Secondary or above education are much more likely to spend on doctor's consultancy and clinical tests for his / her family members than the persons who did not attain Higher Secondary education. We want to test the null hypothesis $H_0 : \delta_{13} = 0$ against alternative hypothesis $H_1 : \delta_{13} > 0$.

Hypothesis 11

The persons who are employed in service sector with more or less regular income are much likely to spend more for the treatment for self / family members than who are engaged in primary sector, i.e. agriculture or allied. We want to test the null hypothesis $H_0 : \delta_{14} = 0$ against alternative hypothesis $H_1 : \delta_{14} > 0$.

Hypothesis 12

The total family size (TFS) is likely to have a positive impact on the per capita health related expenditure on consultancy and clinical tests. We want to test the null hypothesis $H_0 : \delta_{12} = 0$ against alternative hypothesis $H_1 : \delta_{12} > 0$.

Hypothesis 13

The total family size (TFS) is likely to have a positive impact on the per capita health related expenditure on consultancy and clinical tests. We want to test the null hypothesis $H_0 : \delta_{12} = 0$ against alternative hypothesis $H_1 : \delta_{12} > 0$.

Hypothesis 14

The percentage of earner persons in a family is likely to have a positive impact on the per capita health related expenditure on consultancy and clinical tests. We want to test the null hypothesis $H_0 : \delta_{11} = 0$ against alternative hypothesis $H_1 : \delta_{11} > 0$.

Hypothesis 15

It is expected that if the family's head is male rather than female the per capita health related expenditure on consultancy fees of doctors and clinical tests would have increased due to the gender discrimination against female in our society. We want to test the null hypothesis $H_0 : \delta_{15} = 0$ against alternative hypothesis $H_1 : \delta_{15} < 0$.

Hypothesis 16

It is expected that there is positive association between the severity of illness of household's head and per capita health related expenditure on consultancy and clinical tests. We want to test the null hypothesis $H_0 : \delta_{16} = 0$ against alternative hypothesis $H_1 : \delta_{16} > 0$.

Hypothesis 17

It is likely to have a positive impact if individual members of household went to visit quake. When individuals family members went to visit quake for his/her medical management, then it involved the consultancy fees of quake as well as cost of clinical tests advised by quake. We want to test the null hypothesis $H_0 : \delta_{17} = 0$ against alternative hypothesis $H_1 : \delta_{17} > 0$.

Hypothesis 18

It is likely to have a positive impact on the decision to visit private registered practitioner, since it involves consultancy fees of doctors as well as costs of clinical tests as per advice of doctors. We want to test the null hypothesis $H_0 : \delta_{18} = 0$ against alternative hypothesis $H_1 : \delta_{18} > 0$.

Hypothesis 19

The public healthcare facilities are likely to have negative impact on the per capita health related expenditure on consultancy fees of doctors and cost of the clinical tests. We want to test the null hypothesis $H_0 : \delta_{19} = 0$ against alternative hypothesis $H_1 : \delta_{19} < 0$.

Hypothesis 20

If individual members of a family or household are protected by health insurance policy then it is likely to have a positive impact on the per capita health related expenditure on consultancy fees and clinical test, since after completion of treatment the health insured members could have received the reimbursement of the treatment. We want to test the null hypothesis $H_0 : \delta_{20} = 0$ against alternative hypothesis $H_1 : \delta_{20} > 0$.

Hypothesis 21

The presence of old-aged family members i.e. the members belongs to the age of 60 years and above is likely to have a positive impact on the per capital health related expenditure on consultancy fees of doctors and the costs of clinical services, since they are vulnerable in different type of diseases. We want to test the null hypothesis $H_0 : \delta_{21} = 0$ against alternative hypothesis $H_1 : \delta_{21} > 0$.

Hypothesis 22

The presence of under-five children in a family is likely have a positive impact on the per capita health related expenditure on consultancy fees of child specialized doctors and costs of clinical tests, since this section of our society is vulnerable in terms of law immunity. Therefore, the regular or routine consultancy with doctors is essential for the under-five children which lead to escalation of the cost of treatment. We want to test the null hypothesis $H_0 : \delta_{22} = 0$ against alternative hypothesis $H_1 : \delta_{22} > 0$.

Hypothesis 23

The presence of under-fourteen children of a family is likely to have a positive impact on the per capita health related expenditure on consultancy fees of doctors as well as increases in costs of clinical tests. We want to test the null hypothesis $H_0 : \delta_{23} = 0$ against alternative hypothesis $H_1 : \delta_{12} > 0$.

Hypothesis 24

If the perception of household's head about the public healthcare facilities is 'good', then it is likely to have a negative impact on the per capita health related expenditure on consultancy fees of doctors as well as the cost of clinical tests. We want to test the null hypothesis $H_0 : \delta_{24} = 0$ against alternative hypothesis $H_1 : \delta_{24} > 0$.

Hypothesis 25

The loan taking behaviour of households' a members of family for the purpose of treatment could have increased the per capita health related expenditure on consultancy fees of doctors as well as the cost of clinical tests, since loan can improve the ability to pay for consultancy fees and cost of clinical tests. We want to test the null hypothesis $H_0 : \delta_{26} = 0$ against alternative hypothesis $H_1 : \delta_{26} > 0$.

VI. Result and Discussion

Correlation between Per Capita Total Health Related Expenditure on Consultancy and Clinical Services (PCHECC) and Other Socioeconomic Variable among General Caste Group

Before running multiple robust multiple regressions it is necessary to check the inter-correlation profile of independent variables and all other explanatory variables as well as pair wise correlation coefficient among explanatory variables which is also stated earlier. This is depicted in triangular matrix in table 1 in appendix.

For General Category of households it is seen that PCHECC is negatively correlated with PCOL, PCL, PU_5C, TNVTMS, TFS and PEPF and positively correlated with AFI, PCFI, PVMF and PMSSD. Of these explanatory variables PCFI, PCL and PMSSD are statistically significance at 5% level of significance. All these three explanatory variables have their expected sign.

Now I want to explain the paid correlation coefficient among the explanatory variables. It is found that AFI is positively related to PCFI, PVAM and TFS and all are statistically significant at 5% level.

We found that PCOL is positively related with PCFI and it is statistically significant at 5% level. Similarly,

PCFI is negatively correlated with TFS and positively correlated with PVMF whereas PVMF is negatively correlated with PCL and all are statistically significance at 5% level. Similarly, there exists inter-correlation among other explanatory variables. Therefore, there is a possibility of multicolinearity.

The Robust Multiple Regression Model of Per Capita Health Related Total Expenditure on Consultancy and Clinical Services (PCHECC)

I have run robust multiple regression model of per capita total health related expenditure on consultancy and clinical services (PCHECC) by experimenting with independent variable adopted. Taking PCHECC as a dependent variable the OLS estimate will found to be that which include all explanatory variables except education, sex and health insurance dummy. In terms of multiple coefficient of determination (R-Squared) the overall goodness-of-fit the chosen model is quite satisfactory as it observed to be 0.4757. Hence about 48% of the variation of the PCHECC (dependant Variable) can be explained in terms of explanatory variables included in our model. The observed probability value (p-value), that is, prob> F (24,153) = 0.0000 points to an overall satisfactory performance of multiple regression. It also implies the null hypothesis is rejected at high level of significance. Further as mean variance inflation factor (VIF) falls to 3.09 the model suffers from less multicollinearity effect.

It is found that PCOL, PCL, TNVTMS, TFS, Dummy Variable of Decision to visit Quake for health facility, Decision to visit private registered Practitioner Dummy and Health insurance dummy are statistically significant at 5%, 10%, 1%, 10%, 1%, 5% and 1% level of significance. The results revealed that sign of estimated coefficients of PCOL, PCL and TFS deviates from our general hypothesis. We also have seen that the estimated coefficient of decision to visit Quake dummy variable is negative where as estimated coefficient of decision to visit registered practitioner dummy as well as health insurance dummy variables are positive.

VII. Conclusion

The analysis of field level data generated by us points to significant observations regarding the demand for consultancy and clinical services**.** It is seen that the coefficient of determination is about 48% which mean there are more factor which affect R-Squared was not include in our model. Since that PCOL, PCL, TNVTMS, TFS, Dummy Variable of Decision to visit Quake for health facility, Decision to visit private registered Practitioner Dummy and Health insurance dummy are statistically significant variables in explaining demand for consultancy and clinical services in north 24 District of West Bengal, So we conclude that these variable play crucial role in determining demand for health care in village based economy. In village based economy the quake rule supreme in the area, so there is no other available option for their treatment. PCOL is an important factor in village based economy but present central government try to accusation land from farmer which will affect income of rural people.

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Appendix

Table –1: Correlation Coefficient between Per Capita Total Health Related Expenditure and All Other Quantitative Variables for GEN Groups of Households

```
. pwcorr  pcthe afi pcol pcfi pvmf pcl pu_5c fmr pmssd tnvtms tfs pepf,star(5)
(fmr ignored because string variable)
```

	pcthe	afi	pcol	pcfi	pvmf	pcl	pu_5c
pcthe	1.0000						
afi	0.4524*	1.0000					
pcol	0.0352	0.1360	1.0000				
pcfi	0.5893*	0.7060*	0.2662*	1.0000			
pvmf	0.1470	0.1846*	-0.0135	0.1959*	1.0000		
pcl	-0.2057*	-0.0527	0.0074	-0.1387	-0.1940*	1.0000	
pu_5c	-0.1472*	-0.0805	-0.0065	-0.1057	-0.1237	0.5161*	1.0000
pmssd	0.1995*	-0.0321	-0.0957	-0.0006	0.0626	-0.0438	0.0174
tnvtms	-0.0935	0.0312	-0.0617	-0.0439	-0.0189	0.0462	0.0302
tfs	-0.1656*	0.3494*	-0.0669	-0.2470*	0.1046	0.1571*	0.0284
pepf	-0.0384	-0.1270	-0.0589	0.0510	0.0389	-0.3608*	-0.1447

	pmssd	tnvtms	tfs	pepf
pmssd	1.0000			
tnvtms	-0.0224	1.0000		
tfs	-0.0749	0.1047	1.0000	
pepf	-0.0413	-0.0952	-0.3199*	1.0000

Table – 2. The Multiple Regression Model of PCHECC for GEN

```
. reg  lnpchecc  afi pcol pcfi pvmf pcl pu_5c fmr pmssd tnvtms tfs pepf d1i d2i
> d3i d4i d5i d6i d7i d8i d9i d10i d11i d12i d13i d14i,robust
note: d14i omitted because of collinearity

Linear regression                                      Number of obs =     178
                                                       F( 24,   153) =    7.90
                                                       Prob > F      =  0.0000
                                                       R-squared     =  0.4757
                                                       Root MSE      =  .82272
```

lnpchecc	Coef.	Robust Std. Err.	t	P>|t|	[95% Conf.	Interval]
afi	-3.02e-07	1.85e-06	-0.16	0.871	-3.96e-06	3.35e-06
pcol	-.8995145	.4123076	-2.18	0.031	-1.714065	-.0849636
pcfi	.0000143	9.67e-06	1.47	0.142	-4.85e-06	.0000334
pvmf	-.0059179	.008726	-0.68	0.499	-.023157	.0113211
pcl	-.0102371	.006043	-1.69	0.092	-.0221756	.0017015
pu_5c	-.0016902	.0104818	-0.16	0.872	-.022398	.0190175
fmr	.0899317	.0598072	1.50	0.135	-.0282229	.2080863
pmssd	.0210994	.0154814	1.36	0.175	-.0094854	.0516842
tnvtms	.0270639	.0055036	4.92	0.000	.016191	.0379368
tfs	-.1644291	.0961773	-1.71	0.089	-.354436	.0255779
pepf	-.0048948	.0041552	-1.18	0.241	-.0131037	.0033141
d1i	-.0955162	.2525758	-0.38	0.706	-.5945025	.4034701
d2i	-.3052014	.2385359	-1.28	0.203	-.7764507	.1660478
d3i	.1080548	.2657898	0.41	0.685	-.417037	.6331466
d4i	.3752749	.1425098	2.63	0.009	.0937339	.6568159
d5i	-.8607308	.358947	-2.40	0.018	-1.569863	-.1515986
d6i	.7931234	.1386982	5.72	0.000	.5191126	1.067134
d7i	.2268819	.141699	1.60	0.111	-.0530573	.506821
d8i	1.036364	.4403701	2.35	0.020	.1663726	1.906354
d9i	.1108796	.352011	0.31	0.753	-.5845498	.8063091
d10i	-.0532249	.3613289	-0.15	0.883	-.7670628	.6606131
d11i	.2110053	.2559448	0.82	0.411	-.2946367	.7166474
d12i	.0877229	.180311	0.49	0.627	-.2684977	.4439434
d13i	.1194453	.1790554	0.67	0.506	-.2342949	.4731855
d14i	(omitted)					
_cons	5.77575	.6605042	8.74	0.000	4.470864	7.080635

```
. vif
```

Variable	VIF	1/VIF
pu_5c	8.69	0.115096
d10i	8.51	0.117499
pcfi	5.92	0.168909
d9i	5.71	0.175263
afi	5.70	0.175548
pcl	5.46	0.183135
d11i	5.00	0.200143
pvmf	4.76	0.210182
tfs	3.99	0.250494
pcol	1.72	0.580993
d2i	1.69	0.590245
pepf	1.48	0.676742
tnvtms	1.45	0.689263
d5i	1.42	0.705269
d3i	1.38	0.726389
d4i	1.37	0.728103
d13i	1.33	0.751583
d1i	1.27	0.786919
d7i	1.26	0.790517
d8i	1.21	0.827977
d12i	1.21	0.828782
d6i	1.20	0.829966
fmr	1.19	0.842266
pmssd	1.14	0.876955
Mean VIF	3.09	

```
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```