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Distressed Financing of Major Morbidity in India

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ABSTRACT

- At the beginning of the 21st century, we are experiencing several public health challenges.
- Health payments that are done through borrowings or sale of assets to pay for health expenditure are termed as distressed financing
- This analysis finds a critical evidence of distressed financing and ways to cope this financing
- Results show that in both rounds the magnitude of spending on food, education decreases with the as coping strategy for distress financing.

INTRODUCTION

- ❖ At the beginning of the 21st century, we are experiencing several public health challenges.
- ❖ With the increasing attention towards achieving better health, India has achieved significant health improvement in terms of higher life expectancy and lower level of mortality over the last 50 years.
- ❖ Health systems can deliver health services, preventive and curative, that can make a difference to peoples' health.
- ❖ However, accessing these services can lead to individuals having to pay catastrophic proportions of their available income and push many households into poverty.
- ❖ The protecting of people from catastrophic payments is widely accepted as a desirable objective of health policy.

OBJECTIVE

- ❖ To examine Catastrophic expenditure and Impoverishment in IHDS I and II
- ❖ To examine the coping strategies of Households for health expenditure

DATA SOURCE AND METHODOLOGY

Data Source:

The Study used data from both rounds of Indian Human Development Survey (IHDS). Which are conducted during 2004-05 (IHDS I) and 2011-12 (IHDS II).

Methodology:

- The Methodology consist of estimation of Catastrophic expenditure, Impoverishment due to health payments. And at last what are the strategies adopted by household to tackle health expenditure payments.
- ✓ To define the Catastrophic expenditure we followed the definition as per the Murray (2003).
 - In this study a household is defined to be facing Catastrophic expenditure when the total Out of pocket expenditure payments equal or exceed 40% of the households capacity to pay.
 - A household is Impoverished when it crosses the poverty line after paying for health services, thus shifting households from non-poor status to poor status.
 - In order to determine how households adjust their consumption patterns to cope with higher levels of OOP, a system of Engel curves is estimated in the form of budget shares.
 - An Engel curve explains the relationship between consumer expenditure on a particular good and his total income or expenditure, holding prices constant. This analysis will estimate Engel curves in the form
 - $W_{ih} = \alpha_{ih} + \beta_{ih} \log(x_{ih})$
 - where w_{ih} is the expenditure share of good i for household h , x is total expenditure, and α_{ih} and β_{ih} are parameters to be estimated
 - In each the system contains four equations corresponding to the expenditure shares (excluding OOP) of FOOD, EDUCATION, HOUSE, and OTHER, a typical equation can be followed as
 - $s_{ih} = \alpha_{ih} + \beta_1 \log(\text{TEXPh}) + \beta_2 \text{CATA32h} + \beta_3 \text{CATA43h} + \beta_4 \text{CATA54h} + X_h \lambda + U_{ih}$
 - Where s is the expenditure share of good i for household h , X is the set of socioeconomic and demographic controls, and u is a random error term.

RESULTS

Prevalence of major morbidity in IHDS I and IHDS II

- ❖ The prevalence of disease like blood pressure, Heart Disease, Diabetes, Cataract is more as compared to the other diseases during both the years.
- ❖ In rural Infectious diseases has somewhat are prevalent as compare to their counterparts.
- ❖ Female have higher prevalence rate as compared to males, except for the diseases like tuberculosis, Accidents and Polio

Catastrophic expenditure and Impoverishment in IHDS I and IHDS II

- ❖ The percentage of households faced catastrophic expenditure due to the health payments has been increased during the years
- ❖ In 2004-05 only 10 percent of the households faced the catastrophic expenditure whereas in 2011-12 this has been increased by 2 percent
- ❖ The proportion of households falling below poverty line increases with the increase in the number of sixty-plus aged elderly members in households
- ❖ North-Central zone has the highest percentage of impoverishment both during 2004-05 and 2011-12
- ❖ Even though the burden of health expenditure has increased over the period but the percentage of non-poor households pushed into poverty has been decreased by almost 4 percent.

Table 1: Coping mechanism due to distress financing

Expenditure	IHDS-I		IHDS-II	
	β Coefficients	P value	β Coefficients	P value
Food expenditure				
Log total expenditure	1080	0.000	2040	0.000
cata2 ¹	-22	0.043	-101	0.000
cata3 ²	-78	0.000	-287	0.000
cata4 ³	-141	0.000	-921	0.000
URBAN	-84	0.000	-68	0.000
Education of household head				
Size of the household	-17	0.000	1	0.862
Education expenditure				
Log total expenditure	426	0.000	787	0.000
cata2 ¹				
cata3 ²				
cata4 ³				
URBAN				
Household expenditure				
Log total expenditure	291	0.000	937	0.000
cata2 ¹	-65	0.000	-131	0.000
cata3 ²	-53	0.000	-224	0.000
cata4 ³	-68	0.000	-453	0.000
URBAN	56	0.000	119	0.000
Other expenditure				
Log total expenditure	15	0.000	62	0.000
Size of the household	-10	0.027	-106	0.000
Other expenditure				
Log total expenditure	31	0.000	9	0.537
Size of the household	-139	0.000	-377	0.000
Other expenditure				
Log total expenditure	2488	0.000	5602	0.000
cata2 ¹	-321	0.000	-727	0.000
cata3 ²	-347	0.000	-995	0.000
cata4 ³	-387	0.000	-2408	0.000
URBAN2011	-619	0.000	-983	0.000
Education of household head				
Size of the household	-63	0.000	-40	0.21
Other expenditure				
Log total expenditure	-624	0.000	-1418	0.000

1 : CATA2 = 1 if $0.1 \leq \text{oop}/\text{ctp} < 0.2$ CATA2 = 0 if otherwise 2 : CATA3 = 1 if $0.2 \leq \text{oop}/\text{ctp} < 0.4$ CATA3 = 0 if otherwise 3: CATA4 = 1 if $0.4 \leq \text{oop}/\text{ctp}$

- ❖ In each of the round the coefficients on CATA2, CATA3 and CATA4 from the expenditure share regressions in Table 1
- ❖ The results show that in both the rounds the magnitude of spending on food expenditure decreases with the increase in the health expenditure of health.
- ❖ The coefficients are very high in magnitude in case of other expenditures for the lowest level of catastrophic expenditure, this suggest that the households tends to give up their other expenditure when health payments occurs and then they go for the education in the first round and household expenditure in the second round.

CONCLUSION

- ❖ We find that about five percent in 2004 and two percent in 2011-12 households have fallen into the below poverty line due to the health payments, one of the studies on India by Kumar *et al* (2015) as compared India with china, and found that in India about seven percent of households fall below poverty line due to the health payments.
- ❖ From the study it can be inferred that households protect their food expenditure and tends to low their education, household expenditure and other expenditures when the health payments are low