

Catastrophic health expenditure and socio-economic factors:
which evidence for rural households in Tunisia?

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Overview

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Background

- The financial hardship is recognized as one of the significant barriers to health services utilization
- The latest World Health Report has emphasized the role of 'research' in defining and measuring progress towards achieving the UHC goals, ensuring that all people have access to the health services which they need and protecting households against the financial hardship risk linked to paying for care
- Tunisia is a country characterized by rapid demographic, epidemiological and political transitions associated with the presence of a large informal sector, structural unemployment and sluggish economic growth (World Bank 2011; NIS 2011).
- With a rapid demographic, epidemiological and political transitions associated with the presence of a large informal sector, structural unemployment and sluggish economic growth, several reforms have been undertaken over the last two decades to attain UHC with the goals of ensuring financial protection in health, enhancing access to healthcare and promote equity in health care finance growth (World Bank 2011; NIS 2011).

- In 2007, Tunisian authorities launched a unified insurance scheme by merging several insurance plans covering different professional groups under the Social Security Fund.
- Despite this efforts, the financial burden of the health care expenditure persist and Tunisian households continue to fund the largest share of total health spending (37.5% in 2010 despite a decline of 5.4 % compared to 2005 (their share was estimated at 42.9%) (MPH, 2013)
- Furthermore and based on Tunisia - National Survey on Household Budget, Consumption and Standard of Living for 2005 and 2010 we can notice the deep disparities between out-of-pocket spending on health in rural and urban area (Urban: 910.4 in 2005 to 1055.6 in 2010 & Rural: 549.7 in 2005 to 663.1 in 2010)
- Rural households in Tunisia are characterized by paucity of their economic resources. The employment profile is dominated by the self employed and workers in the agriculture sectors.
- Considering the lower socio-economic status of the rural households in Tunisia and based on previous study (Abu-Zaineh et al, 2014), our work seeks to address some of the key questions about the role of this factors to increase the likelihood of the falling of this households into catastrophic health care expenditure situation.

Materials and methods

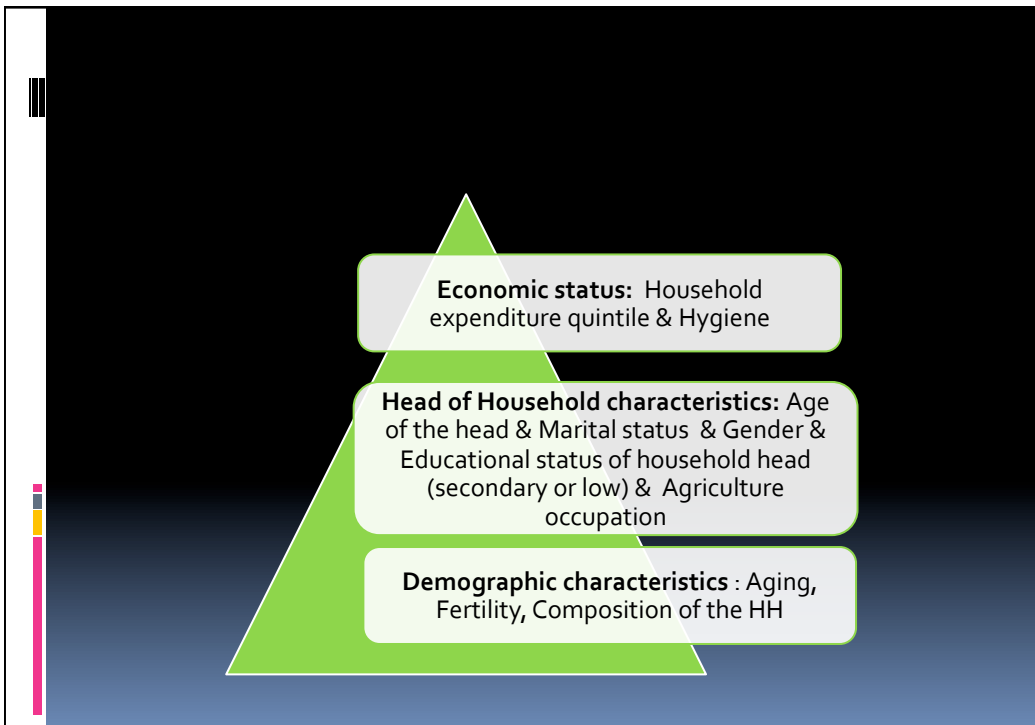
■ theoretical Framework :

- Out-of-pocket expenditure (OOP) on medical care is considered unforeseen, it restore well-being of the household
- Classify spending as "catastrophic" if it exceeds a certain fraction of household pre-payment income or consumption (discretionary expenditure or non food expenditure)
- Measure whether, and by how much, health spending exceeds a defined threshold (e.g. 10%, 15%, 25%, 40%) of pre-payment income/consumption
- Headcount, overshoot and MPG
- Simultaneous logistic model

■ Data

- Tunisia - National Survey on Household Budget, Consumption and Standard of Living for 2005 and 2010 which was conducted by the Tunisian institute for Statistics

■ Variables



The slide has a dark blue gradient background. The text 'Major findings' is centered in a white, bold, sans-serif font. On the left side of the slide, there is a vertical bar with a white background and a pink, yellow, and grey segment, and a small black icon consisting of three vertical bars.

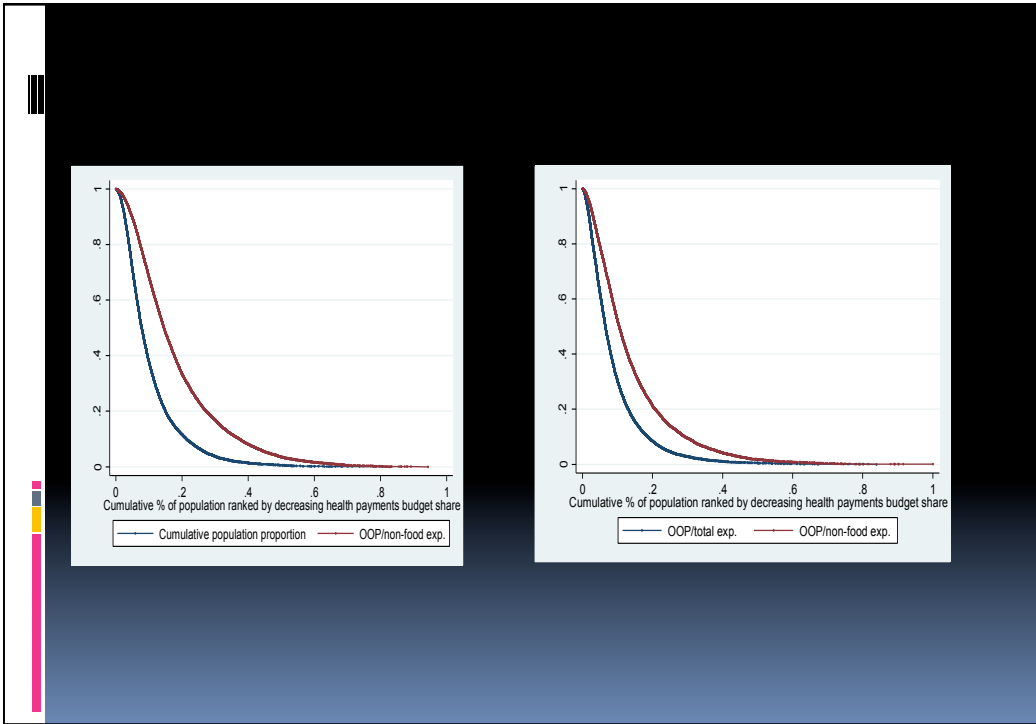
Major findings

Threshold budget share of total expenditure 2005				
	5%	10%	25%	40%
Head count (H_{cat})% <i>(Standard error)</i>	63.95 <i>(0.007)</i>	32.83 <i>(0.007)</i>	6.16 <i>(0.003)</i>	1.28 <i>(0.001)</i>
Overshoot (G_{cat}) <i>(Standard error)</i>	14.05 <i>(0.001)</i>	6.02 <i>(0.001)</i>	0.565 <i>(0.000)</i>	0.001 <i>(0.002)</i>
Mean positive gap% (MPG_{cat}) <i>(Standard error)</i>	8.3 <i>(0.002)</i>	9.2 <i>(0.003)</i>	10.8 <i>(0.007)</i>	12.80 <i>(0.016)</i>
Threshold budget share of total expenditure 2010				
Head count (H_{cat})% <i>(Standard error)</i>	54.13 <i>(0.008)</i>	27.58 <i>(0.0075)</i>	5.154 <i>(0.0035)</i>	1.20 <i>(0.0016)</i>

CHE \geq 10% of the total expenditure of the rural household				
	2005		2010	
Factors	β	Odds ratio	β	Odds ratio
Socio-economic status				
Household expenditure quintile				
Q2	0.488 <i>(.173)</i>	2.81*	0.356 <i>(0.156)</i>	1.84***
Q3	0.842 <i>(.189)</i>	4.44*	0.646 <i>(0.028)</i>	2.86**
Q4	0.754 <i>(.209)</i>	3.60*	0.589 <i>(0.003)</i>	2.21**
Q5	1.078 <i>(0.255)</i>	4.22*	1.016 <i>(0.000)</i>	3.04*
Water and connection to sewage	0.415 <i>(0.194)</i>	2.14**	0.067 <i>(0.000)</i>	0.32*
Head of Household characteristics				

CHE \geq 10% of the total expenditure of the rural household				
Factors	2005		2010	
	β	Odds ratio	β	Odds ratio
Age of the head	0.0078 (0.006)	1.24	-0.006 (0.306)	0.83
Marital status	0.0736 (0.319)	0.23	0.412 (0.008)	0.94
Gender: Female	0.0490 (0.377)	0.13**	0.207 (0.046)	0.37**
Educational status of household head (secondary or low)	0.8520 (0.343)	2.48**	0.526 (0.006)	1.34**
Agriculture occupation	0.1061 (0.144)	0.73**	0.076 (0.001)	0.46**
Demographic characteristics				
Aging	0.178	2.60*	0.101	0.73*

CHE \geq 10% of the total expenditure of the rural household				
Factors	2005		2010	
	β	Odds ratio	β	Odds ratio
Fertility	-0.184 (0.157)	0.81*	0.022 (0.002)	0.11
Composition of the HH	-0.261 (0.213)	1.22*	-0.589 (0.007)	2.47
Constant	-2.461 (0.562)	4.37*	-1.664 (0.081)	2.46*
		LR χ^2 (13)= 277.61, Pseudo R ² = 0.140 Prob > χ^2 = 0.0000, Hosmer–Lemeshow test χ^2 (8)= 10.67	LR χ^2 (13)=119.35, Pseudo R ² = 0.171 Prob > χ^2 = 0.0000, Hosmer–Lemeshow test χ^2 (8)=9.73	



Conclusion

- Despite all efforts, Tunisian health care system appear enable to reduce the financial burden associated with ill-health episodes
- Tunisian health care system needs to be more evaluated to ensure more fair financial protection in health to the entire of the rural household compared with urban Households.
- With a domination of the self employed or employment in the agriculture sector (still marginalised) , equitable access to health services is a challenge to the policy makers especially in the context of epidemiological transition
- The poor financing shemes shall be pursued to mitigate the negative impact of the ill-health episodes
- Information system is called to improve and brisk greater information sharing between the Ministry of social Affairs and the Ministry of public Health