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The impact of the economic crisis on the incidence and intensity of catastrophic health payments in Greece

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Introduction

- The unpredictable character of health shocks may force the mobilization of significant household financial resources to the purchase of health good and services, thus disrupting their living conditions, or even forcing them into poverty or deepening the poverty they have already experienced [1].
- Financial fairness in health care argues for the adoption of policies shielding households from such catastrophic medical expenses when seeking health care.
- The economic crisis and the relevant reforms have imposed a significant pressure on citizens' socioeconomic situation of as well as the quality and range of services provided by the national healthcare system in Greece.

Objective

- To investigate the change in the incidence and intensity of catastrophic health payments and their distribution among economic strata in Greece.

Methods

Study design

- Data were derived from the Household Budget Surveys (HBS) of 2008 and 2013. 3460 households were surveyed in 2008 and 3468 in 2013. The HBS is an annual cross-sectional survey, which comprises nationally representative data covering all non-institutional households.

Statistical analysis

- Our analysis followed the methodology proposed by the World Health Organization [2] and O'Donnell et al. [3].
- All expenditures were equivalised with the modified OECD scale.
- Catastrophic health expenditure (CHE) was defined as a health payment that exceeded a given percentage (5%, 10%, 15%, 20%, 25%, 30% and 40%) of the household capacity to pay.
- The distribution of the incidence (proportion of households) and intensity (average excess of health payment budget share) of CHE in relation to total consumption was measured by concentration indices (CIs). If the concentration index is negative (positive), the incidence or intensity is more concentrated on poor (rich) households.
- The mean positive overshoot expresses the average excess of health payment budget share of those households with CHE.
- Descriptive statistics were used to summarize data.

Results

- The share of health payments to household capacity to pay increased from 8.5% to 9.1% between 2008-2013.
- The proportion of households with CHE increased for thresholds at 5% (49.9%-56.3%), 10% (26.9%-32.1%), 15% (15.1%-19.6%), 20% (9.4%-12.0%) and 25% (6.1%-6.6%), but decreased for 30% (4.1%-3.9%) and 40% (1.7%-1.0%) (Table 1).
- The intensity of CHE among those households decreased for all thresholds, i.e. at 5% (9.6%-9.3%), 10% (11.1%-9.6%), 15% (12.9%-9.3%), 20% (14.5%-8.7%), 25% (16.2%-9.0%), 30% (18.0%-8.4%) and 40% (27.1%-8.4%) between 2008-2013 (Table 3).
- CIs revealed a greater tendency for poorer households to exceed payment thresholds and to have larger excess payments, which was significantly intensified with higher thresholds.
- Inequities were reduced for both incidence and intensity for all thresholds in 2013 (e.g. -0.105 and -0.377 at 5% and 40%) compared with 2008 (e.g. -0.118 and -0.430 at 5% and 40%).

Results

Table 1. Incidence of CHE and its distribution between socioeconomic strata, 2008 vs. 2013

	Thresholds													
	5%		10%		15%		20%		25%		30%		40%	
Quantiles of total consumption	2008	2013	2008	2013	2008	2013	2008	2013	2008	2013	2008	2013	2008	2013
1	66.9%	75.0%	44.7%	49.9%	27.9%	34.2%	17.7%	22.4%	11.7%	12.4%	8.3%	7.9%	4.5%	2.8%
2	53.1%	65.5%	26.4%	34.4%	15.2%	19.4%	9.7%	10.8%	6.8%	5.9%	5.0%	3.7%	1.7%	0.8%
3	50.3%	51.4%	24.1%	27.0%	13.7%	18.0%	7.2%	12.2%	4.5%	6.4%	2.9%	4.2%	0.8%	0.9%
4	44.1%	47.6%	23.1%	27.5%	10.4%	15.7%	7.7%	9.3%	4.5%	5.3%	2.7%	2.8%	0.8%	0.6%
5	36.6%	46.3%	17.4%	24.9%	9.3%	13.3%	5.0%	7.2%	3.2%	4.0%	1.9%	1.9%	0.8%	0.4%
Total	49.9%	56.3%	26.9%	32.1%	15.1%	19.6%	9.4%	12.0%	6.1%	6.6%	4.1%	3.9%	1.7%	1.0%
CI	-0.118	-0.105	-0.182	-0.138	-0.234	-0.179	-0.253	-0.206	-0.279	-0.210	-0.326	-0.271	-0.430	-0.377

Table 2. Intensity of CHE and its distribution between socioeconomic strata, 2008 vs. 2013

	Thresholds													
	5%		10%		15%		20%		25%		30%		40%	
Quantiles of total consumption	2008	2013	2008	2013	2008	2013	2008	2013	2008	2013	2008	2013	2008	2013
1	9.4%	8.8%	6.8%	5.7%	5.0%	3.6%	3.9%	2.2%	3.1%	1.3%	2.6%	0.9%	2.0%	0.3%
2	4.7%	5.4%	2.8%	2.9%	1.8%	1.7%	1.2%	0.9%	0.8%	0.5%	0.5%	0.2%	0.2%	0.0%
3	3.9%	4.7%	2.1%	2.8%	1.2%	1.8%	0.7%	1.0%	0.4%	0.6%	0.3%	0.3%	0.1%	0.1%
4	3.6%	4.3%	2.0%	2.5%	1.2%	1.4%	0.7%	0.8%	0.4%	0.4%	0.3%	0.2%	0.1%	0.1%
5	2.7%	3.7%	1.5%	2.0%	0.9%	1.1%	0.5%	0.6%	0.3%	0.3%	0.2%	0.1%	0.1%	0.0%
Total	4.8%	5.2%	3.0%	3.1%	2.0%	1.8%	1.4%	1.1%	1.0%	0.6%	0.7%	0.3%	0.5%	0.1%
CI	-0.266	-0.168	-0.339	-0.197	-0.406	-0.230	-0.479	-0.259	-0.558	-0.297	-0.636	-0.354	-0.792	-0.519

Table 3. Mean positive overshoot and its distribution between socioeconomic strata, 2008 vs. 2013

	Thresholds													
	5%		10%		15%		20%		25%		30%		40%	
Quantiles of total consumption	2008	2013	2008	2013	2008	2013	2008	2013	2008	2013	2008	2013	2008	2013
1	14.1%	11.7%	15.1%	11.3%	17.8%	10.5%	21.7%	9.8%	26.7%	10.9%	31.4%	10.8%	43.6%	10.6%
2	8.8%	8.2%	10.5%	8.5%	11.7%	8.5%	11.9%	8.3%	11.1%	8.2%	9.2%	6.5%	9.6%	4.7%
3	7.7%	9.2%	8.7%	10.5%	8.7%	9.8%	9.6%	8.4%	9.4%	8.6%	8.7%	7.1%	9.9%	6.5%
4	8.1%	9.0%	8.6%	8.9%	11.2%	8.9%	9.2%	8.3%	9.3%	8.0%	9.5%	8.0%	10.1%	8.6%
5	7.5%	8.0%	8.6%	8.2%	9.3%	8.0%	10.3%	7.7%	9.7%	7.3%	10.5%	7.1%	10.3%	5.1%
Total	9.6%	9.3%	11.1%	9.6%	12.9%	9.3%	14.5%	8.7%	16.2%	9.0%	18.0%	8.4%	27.1%	8.4%
CI	-0.161	-0.067	-0.181	-0.061	-0.214	-0.052	-0.290	-0.058	-0.371	-0.093	-0.445	-0.104	-0.609	-0.223

Conclusions

- Health system's reliance on out-of-pocket payments increased during the economic crisis, though the change in its distribution was pro-poor, indicating the existence of policies providing financial risk protection mechanisms for poorer households.

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