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Spousal labour supply and home production adjustments to health shocks

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Background

Health shocks have been generally shown to causally reduce labour supply of the affected individual. However, definitely less is known on the spousal response which is crucial to understand whether there is any self-insurance mechanism in couples' response to health shocks over the life cycle. Theoretical predictions are a priori uncertain. On the one hand, an income effect arising from the decrease in labour supply and income production of the one whose health deteriorates might increase the partner's labour supply, in the spirit of what has been called the Added Worker Effect (Mincer, 1962, Lundberg, 1985) with reference to the consequences of unemployment. Moreover, additional consumption needs stemming from disability could still encourage the unaffected partner labour supply effort. On the other hand, though, shock-induced disability might limit a person provision of home production services, calling for an additional partner involvement in such activities, at the expenses of time devoted to work. Furthermore, complementarity of leisure, due to shorter partner's life span expectations could contribute to reducing the partner labour supply and change intra-household time allocation.

Contribution and motivation

Previous studies delivered unreconciled empirical evidence on health-related Added Worker Effect and found a systematic gender asymmetry in labour supply adjustments: Berger (1983 and 1984) observed an increase in spouses' labour market supply for women, both to the extensive and to the intensive margins, while men decreased theirs. Gender differences are systematically observed due

to the traditional division of intra-household work as confirmed by Charles (1999) according to which men reduce labour supply by substantial amounts in response to their partners' poor health, whereas wives of ill husbands significantly increase theirs. In line with the previous study, Garcia Gomez et al. (2013) found that in the Netherlands an acute hospitalization has negative and significant impact only on the employment probability of male. However, they didn't find any empirical evidence of health-related AWE for female. Instead, Coile (2004) found that Added Worker Effect is positive and small for men and that there is no such effect for women.

Existing literature acknowledged home production needs as fundamental mechanism in adjustment but studied only labour supply, limiting the understanding of the role played by home production needs, as opposed to leisure complementarity. This work attempts to overcome this limitation considering not only spouses' labour supply adjustment to partner's health shocks, but also providing direct evidence on the home production adjustment in terms of informal care.

Data and methodology

By using Understanding Society: the UK Household Longitudinal Study (UKHLS) our identification strategy exploits uncertainty in the timing of partners' acute health shock, defined by cancer, stroke or heart attack. Conditional on observable characteristics and lagged outcomes, acute health shocks can be treated as exogenous with respect to spousal labour supply and home production. For both partners, we observe labour market activity, home production activities (informal care provision), underlying health risk factors, previous acute health shock history, as well as a wide set of demographic and socioeconomic covariates. We implement a matching strategy as a combination of coarsened exact matching and entropy balancing, which together with parametric regression allow us to compare spousal's labour supply and home production short run responses in the treated group (define by a health shock occurrence) to the ones observed in a matched control group.

Results

Preliminary results find no empirical support for labour supply adjustment (AWE) to partner's health shocks, while highlighting a sizeable home production adjustment. Differently from previous studies, we find no evidence of gender asymmetry in labour supply responses, as both women and men seemed to not adjust their labour market behaviour, at least in the short run.

Preliminary results also highlight the role played by home production adjustments and their importance in shocked couples: partner's health shock bears a sizable and significant effect on the

probability to provide care to the partner and to the household, and a higher relative size effect for male with respect to female. Further heterogeneity analyses are informative on the likely explanatory channels.