Gains from public policies for the care of long-term ill children

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In the paper entitled 'The effect of children's disability on the labour supply of mothers in Hungary' we found large, around 40 percentage points differences in the employment rate of mothers raising long-term ill and those with healthy children. Here, we aim to provide a brief overview of the (i) costs of reduced employment to the public budget and (ii) a review of the potential public policy responses that aim to alleviate the burden of disabilities. We need to note that our objective here is rather limited: our focus is not on preventive measures, but rather on policies that might ease the burden posed by the care needs of long-term ill children. However, the empirical investigation we conducted is not easily suited for assessing the costs and benefits of those policies. For this kind of analysis, for a given policy, first, one would have to estimate the take-up rate of the services among members of the target group; second, one would have to also estimate the effect of the service on the employment rate. Given the paucity of data about the type of services that are considered best practice by experts in the field, we could only provide some back-of-the-envelope calculations, which would require us to make some very strong behavioural assumptions.

Exploring the needs of parents with long-term ill children and the possible expansion of child-care services

We first provide some circumstantial evidence that it is indeed the care needs of raising a long-term ill child that might prevent their mothers from participating in the labour market. We contrasted the responses of those mothers who claimed extended child care allowance and who did not and were currently not employed to two questions. We found that the unsolved child care was stated as the most important reason for leaving their last job among mothers raising long-term ill children (45.5%) while this was a decisive factor for much fewer of mothers with healthy children (17.5%). There is also a marked difference across 'treated' and 'control' groups when looking at the primary reason for not seeking employment among inactive mothers. More than eighty percent of mothers with long-term ill children assert that this because they could not find (suitable) care for their children (80.9%), while this cited by only 31.8% of mothers of healthy children as the primary reason for not actively looking for a job.[1]

These answers suggest that the main barrier to employment for mothers who raise severely ill or disabled children could be the absence or scarcity of childcare possibilities. (Krémer és Rozsos 2009) analyse the circumstances of families who raise mentally disabled children in Hungary. Based on interviews with parents, they describe that the possibilities for residential child care, day-care and home-based care are limited, especially outside the capital. For example, early childhood intervention programmes are basically non-available for families living outside Budapest, long waiting lists are very common for suitable residential child care institutions, and the opening hours of day-care provision specialised for disabled children are

[1] These calculations are based on the sample of (married and cohabiting) mothers of children age 4-9 from the pooled HLFS 2008-1012 database.

often not adjusted to working hours. Another study carried out by Hand in Hand Foundation (Kézenfogva Alapítvány 2008) examines the residential care and home-based care options for disabled people in Hungary. Although the study does not focus on children exclusively but generally on disabled people, it confirms that the possibilities for childcare are limited, and that a substantial number of parents are distrustful of residential care institutions.

The expansion of day-care facilities and especially public assistance in home-based care is suggested by both Krémer and Rozsos (2009), and Kézenfogva Alapítvány (2008) as the most fruitful way to alleviate the care needs of long-term ill and disabled. In Hungary, a public social service called home-based child-care service ("házi gyermekfelügyelet") can be provided by local governments as part of the child welfare provision system. If available locally, it can be claimed by any parent whose child is 20 weeks – 7 years old and cannot be admitted to regular day-care facilities (e.g., kindergarten), for example because of severe health condition. During home-based child-care service, the child is looked after at home by a professional, and parents are charged a service fee, which is calculated by considering the family income (the charged service fee cannot exceed 20% of the income per head in the household). However, publicly provided home-based child-care service is extremely rare in Hungary. Statistics provided by the Institute for National Family- and Social Policy (Nemzeti Család- és Szociálpolitikai Intézet 2012) show that in 2010, only 203 children (among them, 119 in Budapest) were looked after with the help of this service, and the number of service providers were 25.

Potential budgetary benefits from the reemployment of mothers of children with poor health

If more flexible child-care options were available, it might alleviate the problems regarding the low employment level of mothers of severely ill or disabled children. While information on the cost of providing home-based day-care services is hard to come by, we can use our results on mothers receiving extended home care benefits from the LFS combined with wage data from the Wage Survey of the National Employment Agency to estimate the potential benefits extending the availability of child-care. In the first step of the analysis we estimated wage regressions for women based on the 2011 Wage Survey[2], and predicted gross wages for the mothers of long-term ill children found in the LFS.[3] Due to sample size limitations, we performed this calculation only for married or cohabiting mothers.

In the second step of the analysis, we calculated the potential budgetary benefits of the re-employment of mothers based on the imputed wages, where we considered the 2013 tax regulations.[4] Hence, we used an income tax rate of 16% with a tax allowance of HUF 10,000/child/month, and 18.5% contribution to compulsory pension, health and unemployment insurance. To calculate the amount of additional consumption taxes, we assumed that the individuals spend all their labour income on consumption and we used a measure called average consumption tax rate (also called implicit tax rate on consumption), which is total tax revenue from consumption (the sum of value-added tax and excise tax on alcohol, gasoline

[2] The variables included int he wage regrssions were education, age (and its square), occupation, industry, region

[3] Not surprisingly, when comparing the predicted earnings for mothers claiming extended child care benefits and mothers with healthy children, we saw that distribution was more left-skewed for the former group.

[4] The predicted 2011 wages were adjusted with the inflation rate in 2012 (5.7%) and first half of 2013 (2.2%).

and tobacco) divided by the total consumption of private households. This measure takes into consideration that the rate of consumption taxes differs among goods (e.g., VAT is 27% for most products but equals to 18% on some foodstuffs and 5% on goods such as medicine or books, and excise tax rates also depend on the type of good). According to (Eurostat 2013), the average consumption tax rate in Hungary was 26.8% in 2011[5].

We calculated the potential budgetary revenue loss from taxes and contributions due to the lower propensity of employment as the product of the estimated treatment effect on each treated mother (based on our paper 'The effect of children's disability on the labour supply of mothers in Hungary') and the amount of the taxes and contributions, and used the survey-provided sampling weights to aggregate to the population total. If we rely on the treatment effects estimated by regression adjustment, these potential revenue losses would sum up to 367.7 thousand HUF/person/year, while if we use regression adjustment with inverse probability weighting, the potential revenue loss is 346.8 thousand HUF/person/year. This is the expected value of income and consumption taxes these non-single mothers would 'additionally' pay if their children have not had ill health. In similar vein, we calculated the expected foregone earnings from having a severely ill child by multiplying mothers' potential earnings with the decrease in the probability to work (eg. the treatment effect on the treated). This amounts to 632.7 thousand HUF/person/year based on the treatment effects from the regression adjustment, and to 596.4 thousand HUF/person/year if we calculate treatment effects using regression adjustment with inverse probability weighting.

We must note that while it is tempting to interpret the figures as the maximum amount of public funds that can be spent on care services for long-term ill children without incurring monetary losses, this would be misleading. First, these calculations are only valid insofar as the labour market behaviour of mothers with such children were similar to that of mothers of "healthy children", have they had access to home-based child care. It is difficult to corroborate this hypothesis in the absence of data on the take-up rate of such programmes, and the direct estimates of the effect of the offer of home-based child care on the employment of mothers. Second, these calculations ignore some of the potential long-term benefits of home-based child care services. On the one hand, professional care-takers might be beneficial to the development of long-term ill children and a result might facilitate the integration of these children into the school system and later into the labour market. On the other hand, the increased employment chances of mothers, through an increase of their human capital might have positive effect on their long-term income.

References

Eurostat. 2013. „Taxation trends in the European Union. Data for the EU member states, Iceland and Norway". Statistical books. Luxembourg: European Commission. http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-DU-13-001/EN/KS-DU-13-001-EN.PDF.

Kézenfogva Alapítvány. 2008. „Szakértői anyag a fogyatékos emberek számára tartós bentlakást nyújtó intézményrendszer átalakításához".

Krémer, Balázs, és Kata Rozsos. 2009. „Fogyatékos gyereket nevelni: szerep és csapda". *Gyógypedagógiai Szemle* 37 (4): 230–38.

Nemzeti Család- és Szociálpolitikai Intézet. 2012. „Gyermekvédelmi statisztikai tájékoztató 2010". Budapest. http://ncsszi.hu/adatbazis.

[5] As of March 2014, no data on the implicit tax rate on consumption have been published for 2013.