

The Relationship Between Family Income and Child Health in France

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The relationship between individual income and health is the subject of a very substantial literature in social sciences, with the broad finding that higher socio-economic status is associated with better health (Deaton and Paxson, 1999; Marmot and Bobak, 2000; Van Doorslaer et al., 1997; Winkleby et al., 1992). For adults, an issue of debate is the interpretation of this correlation: does income have a causal effect on health? Or the reverse? Or is the correlation due to the omission of confounding factors? Case et al. (2002), CLP hereafter, argue that exploring the relationship for children from developed countries instead of adults simplify the interpretation. Indeed, these children are unlikely to work, and so the effect of child health on parental income may be small or even negligible. Using American data, CLP establish first that parental income is strongly associated with child health, and second, that this relationship strengthens with child age, which means that health disadvantages accumulates over time for children from low-income families. Condliffe and Link (2008) and Murasko (2008) also provide corroborative evidence both on the existence of the gradient and on its strengthening with age in the US and Currie and Stabile (2003) show that these two findings also hold for Canadian children.

Recent research for other developed countries provides corroborative evidence on the existence of the gradient but presents mixed findings on the strengthening of the gradient with age. For a sample of Australian children age less than 7, there is a small but significant gradient that increases with age when similar covariates as CLP are used (Khanam et al., 2009). In Germany, the gradient is as large as in the US and Canada, but there is no evidence that it strengthens over child's lifetime (Reinhold and Jürges, 2011). Findings for the UK are not clear cut: West (1997) and West and Sweeting (2004) show that the correlation between socioeconomic status and child health flattens between childhood and adolescence. Propper et al. (2007) look at children less than 7 from the Avon Longitudinal Study of Parents and Children and show that there is a gradient but that it does not widen with age. Using data from the 1997-2002 Health Survey for England (HSE), Currie et al. (2007) suggest that the gradient increases from birth to age 8 and decreases afterwards. Re-examining the HSE data for the years 1997-2005, Case et al. (2008) suggest that the gradient does deepen between birth and age 12.

Previous research also explores the reasons for the correlation between income and child health. For the US, parents' health, health-related behaviors and insurance status only account for a very small share of the gradient (CLP). In addition, maternal health status and health behaviors during pregnancy and early infancy do not explain either the gradient (Dowd, 2007). The gradient thus remains unexplained and requires further exploration in the US. For the UK, Currie et al. (2007) show that birth weight and parental health do not mediate the association between income and health, whereas Propper et al. (2007) suggest that maternal health, in particular mental health is a key factor that accounts for the correlation between income and the health of young children. For young Australian children, results are very similar and point to the role of parental health as the mechanism through which family income translates into child health (Khanam et al., 2009).

The objective of this paper is to provide a detailed investigation of the gradient in childhood in France. Previous evidence on the gradient for French children is scarce but shows a correlation between socioeconomic status and health: children age 5-6 living in poorer areas are more likely to be obese and to have poor teeth health (Guignon et al., 2010); adolescents age 11 to 15 living in less affluent families are more likely to be in poor general health, to have a health symptom, to have been injured and to be overweight (Currie C. et al., 2008; WHO report, 2008).

We use a large sample of children from the 1994 to 2006 Health, Health Care and Insurance Survey (ESPS) to study the relationship between income and child general health. We begin by investigating whether child subjective health is correlated with family income, and find a positive and significant correlation between income and health. We also explore whether the gradient in general health increases with age like in Canada and the US, and show that it does not. Second, we study the relationship between specific health problems and general health. Finally, we examine the mechanisms that account for the correlation between income and health, focusing on parents' health.

We contribute to the literature on child health in several ways. First, this study produces the first econometric estimates of the income health gradient in childhood in France. Second, the results of the paper are interesting: we show that the association between income and child health in France is smaller than in Canada, Germany, the UK and the US. When investigating the mechanisms underlying the gradient, we show that when parents' health is controlled for, there is no correlation between family income and child health. This suggests that income is not a determinant of child health in itself, and that parents' health is the true determinant of child health. By doing so, we show that previous findings on the large role of parents' health on the health of young children in Australia and the UK (Khanam et al., 2009; Propper et al., 2007) hold for children of all ages in France.