

Growing Up in Scotland – 2010 – Topic Research Findings

Growing Up in Scotland: Health inequalities in the early years

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The Growing Up in Scotland Study

The Growing Up in Scotland study (GUS) is an important longitudinal research project aimed at tracking the lives of a cohort of Scottish children from the early years, through childhood and beyond. The study is funded by the Scottish Government and carried out by the Scottish Centre for Social Research (ScotGen). Its principal aim is to provide information to support policy-making, but it is also intended to be a broader resource that can be drawn on by academics, voluntary sector organisations and other interested parties. Focusing initially on a cohort of 5,217 children aged 0-1 years old (birth cohort) and a cohort of 2,859 children aged 2-3 years old (child cohort), the first wave of fieldwork began in April 2005.

Background to the report

This document is one of a series that summarises key findings from the fourth sweep of the survey, which was collected in 2008/09 when children in the birth cohort were aged 3-4 years and those in the child cohort were aged 5-6 years. It presents key findings from the Growing Up in Scotland study (GUS) report *Health inequalities in the early years*.

Poor health in early life has been shown to have significant and long-term consequences that reach into adulthood. Some outcomes, including the incidence of certain diseases at very late stages in life, have been linked to pre-natal circumstances. The fact that poor health, as well as risk factors for poor health, is significantly socially patterned is

also well established. The report of the Scottish Government's Ministerial Task Force on Health Inequalities, *Equally Well*, highlighted the early years as a priority area of concern and recommended a number of actions be addressed at this crucial life stage. The Scottish Government/COSLA *Early Years Framework* is committed to levelling the outcomes and opportunities for all children and, of critical interest to this piece of work, to identifying those children at risk of poor outcomes.

This report uses data from the first four waves of GUS to explore health inequalities in the early years. The measures explored include health outcomes and risk factors for poor health spanning the time from the early stages of pregnancy until just before the children's fourth birthday.



The report aims to answer the following questions:

- What is the extent and character of health inequalities in the early years?
- What factors, if any, correlate with the avoidance of negative early health outcomes among families from disadvantaged backgrounds?

Health inequalities in the early years

The World Health Organisation's founding definition of health was "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity".¹ This GUS report defined health in a similarly broad way, and followed the approach taken in *Equally Well* which suggests that inequalities can relate to negative outcomes (such as low birth weight) as well as to inequalities in exposure to risk factors that increase the likelihood of, or perpetuate, poor health outcomes. These risk factors include things like poor diet, lack of physical exercise, parental ill-health and family poverty.

The wide range of outcomes explored in the report included: the children's birth weight, their experience of long-term health problems, accidents, poor psychosocial health, reported behaviour difficulties, and problems with cognitive or language development. The risk factors for poor health included: maternal smoking, maternal health, children's physical activity levels and their diet (including whether they were breastfed). All these outcomes and risk factors were explored in relation to area deprivation, household income, and household socio-economic classification. The analysis showed that:

- Exposure to the kinds of risks that can impact on health and development in the early years, and have been shown in the wider literature to have implications for later life, are not uniformly or randomly distributed across the population at this very early point in life. Significant inequalities exist with those in the most deprived areas, the lowest income households or routine and semi-routine households found to have worse health outcomes and higher exposures to risks for poor outcomes than their more advantaged counterparts.
- Although overall levels of outcomes such as long-term health conditions and poor general health are relatively

low in the early years, and appear not to change much each year, this analysis shows that there is in fact quite a high degree of individual-level change in health outcomes in this period.

- While the persistence of poor outcomes was quite variable, exposure to risks such as smoking and poor maternal health was somewhat more stable. For example, of those children whose mothers smoked at some point in their early years, most were exposed to this on a prolonged rather than temporary basis.
- Across all the outcomes and risk factors explored, inequalities in exposure to risk factors were generally larger than those evident for outcomes. However, within the outcomes explored, behavioural, psychosocial and linguistic problems showed much starker inequalities than physical ones such as poor general health.
- The more disadvantaged households can be said to face a double burden in their experience of health inequalities as both the children and adults within them are at greater risk of negative outcomes.

Factors associated with avoiding negative outcomes among disadvantaged children

The second part of the report explored the factors associated with avoiding negative outcomes among disadvantaged children with a particular focus on the concept of resilience. Resilience has been defined as "the process of withstanding the negative effects of risk exposure, demonstrating positive adjustment in the face of adversity or trauma, and beating the odds associated with risks."² The kinds of factors that have been thought to help children at high risk of negative outcomes to avoid them are wide ranging. They include things like strong personal relationships (within families and between individuals within communities), positive relationships between parents and children, enriching environments with opportunities for children to play and learn, neighbourhood support networks and social capital. This stage of the analysis explored a range of possible factors including: maternal, family and household characteristics and behaviours; neighbourhood characteristics; and social support networks.

The extent to which these measures were associated with negative outcomes was explored for all children in the first instance. This showed that:

¹ See: <http://www.who.int/about/definition/en/print.html>

² Bartley, M. [ed.] (2006). *Capabilities and resilience: beating the odds*. London: UCL Department of Epidemiology and Public Health. www.ucl.ac.uk/capabilityandresilience/beattheoddsbook.pdf

- The findings in relation to all children reinforce the evidence that there are strong associations between child outcomes and maternal health and behaviours such as smoking, long-term health problems or disability as well as confidence in parenting abilities. It should be recognised, though, that the experience of having a child with negative health outcomes may in itself influence these maternal measures.
- A number of factors within households also showed associations with the avoidance of negative outcomes, for example the consumption of fruit and vegetables and higher levels of physical activity. The findings also suggest possible associations with measures relating to tenure stability and major life events, parental feelings about household income and the home learning environment (the latter is likely to be related to the measures of cognitive and language development used in this stage of the analysis).
- It has also been suggested that neighbourhoods provide an important source of resilience for families. Based on two measures of satisfaction with local services and judgments of the child friendliness of local areas, positive assessments of these aspects were associated with fewer negative outcomes.
- The extent of social support appeared to be associated with avoiding negative outcomes. Regular attendance at parent and toddler groups throughout the child's life and the ability to draw on support at short notice were both more common among children with low negative outcomes.

To identify resilience it is necessary to show what factors are associated with avoiding negative outcomes among children who are at an increased risk of them. It was clear from the analysis of health inequalities that for most of the negative outcomes of interest, children living in the most deprived areas, in the lowest income households and in semi-routine and routine households were most likely to experience them. Therefore the next stage of the analysis focused on children from disadvantaged backgrounds - those from any of the three socio-economic groups at most risk of negative outcomes. This approach disentangles the association between resilience and socio-economic background which might have explained the findings outlined above. The analysis showed that:

- Only a few of the resilience measures were independently associated with avoiding negative outcomes. Therefore, factors such as area deprivation, income or socio-economic classification clearly have a major influence on health outcomes. In other words, this emphasises the

difficulty of countering very powerful economic and structural influences on early life.

- The significant resilience measures were quite different in nature to each other. For example, children were less likely to have negative outcomes if their mother had not experienced long-term health problems, or if they lived in a household with at least one adult in full-time work, or if they had a more enriching home learning environment. These different kinds of factors would have very wide ranging policy implications.
- It is clear that most of the resilience measures that are significantly associated with avoiding negative outcomes do not sit entirely within the health domain and that effective action to promote resilience and address child health inequalities requires action at many different levels and from a wide range of agencies and bodies.

Conclusions

While the persistence of poor outcomes was quite variable, exposure to risks such as smoking and poor maternal health were somewhat more stable. This suggests that the consequences in later life associated with early exposure to such risks are likely to be evident for decades.

The analysis of health inequalities, and the exploration of resilience, both highlighted the extent to which more disadvantaged households experience a double burden in their experience of health inequalities with children and adults within them being at greater risk of negative outcomes. The major focus on early years currently evident in Scottish Government policy making therefore needs to be alive to the fact that tackling health inequalities in children also requires action to address the health inequalities experienced by their parents and wider families.

The findings from the exploratory analysis of resilience suggest that, in line with previous research, relatively few of the potential resilience measures explored were significant once socio-economic factors were taken into consideration. This indicates that boosting resilience alone cannot reduce children's risk of poor health outcomes and therefore resilience is likely to have only a very small contribution to the reduction of negative outcomes. However, this is not to detract from the finding that some factors (such as the home learning environment) were shown to be associated with the avoidance of negative outcomes, which suggests that some levers to mitigate the impact of disadvantage might exist.

Although a study such as GUS can demonstrate the sequence over time between possible explanatory factors

and outcomes, it still cannot provide definitive conclusions about the direct relationship between them. There is always the possibility that some additional unmeasured factor, related to both the outcome and apparently explanatory factor, is what actually explains the association found. To truly establish cause and effect is very complex and usually requires experimental methods and the accumulation of evidence from numerous different sources. In the absence of experimental evidence, the current analysis therefore

contributes to the wider accumulation of evidence in favour of intervening in the early years.

The extent of the socio-economic inequalities identified in this piece of work, coupled with the suggestion that resilience to negative outcomes might come in the form of actions that address a wide and disparate range of factors makes it clear that tackling health inequality requires input at many levels from a wide range of actors. This is not in the gift of the health service or other service providers alone.

Further information on the Growing Up in Scotland Study can also be found at: www.growingupinscotland.org.uk

If you require further copies of this research findings please contact:

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